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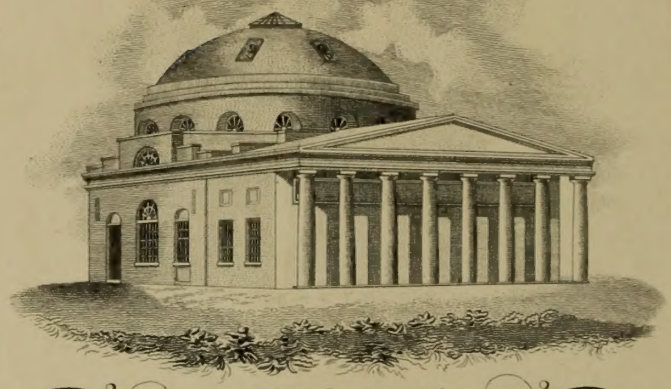

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1850 (a)

Author	Title
McMaster, John T.B.	Oleum Iecoris Aselli
Anthony, Joseph J.	Pneumonia
Baldwin, Mahlon K.	Dysentery
Rider, Noah S.	Influence of Climate Disease
Hays, George Thomas	A Report of Four Cases
Robbins, D. H.	Asiatic or Epidemic Cholera
Digges, Robert	Pneumonia
Harris, Adam Clarke	Fractures
Belt, Upton Heath	Rubeola
Berry, Wm. H.	The Malignant Typhus Epidemic of 1849
Spindle, Philip S.	Measles
Clendinen,Wm. Haslett	Peritonitis
Fendall, Joshua F.C.	Typhoid Fever
Dorsey, Edward J.	Typhoid Fever
Ebert, Edwin	Enteric Fever
Keffer, Wm. H.	Pneumonia
Boon, Wm. Henry	The Pulse
Brewer, Marbury	Aneurism
Fitzhugh, Wm. Hughes	Scarlet Fever
Blanton, Orville M.	Report of Cases

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UNIVERSITY OF MARYLAND

THESES

1850

McMaster, John T. B.	Oleum ~~Iseonis~~ Jecoris Aselli ~~Ascitii~~	Md.	16p.
Anthony, Joseph J.	Pneumonia	N.C	16p.
Baldwin, Mahlon K.	Dysentery	Va.	23p.
Rider, Noah ~~I.~~ S.	Influence of Climatic Disease	Md.	20p.
Hays, George Thomas	A Report of Four Cases	Va.	22p.
Robbins, D. H.	Asiatic or Epidemic Cholera	Md.	28p.
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Harris, Adam Clarke	Fractures	N.C.	35p.
Belt, Upton Heath	Rubeola	Md.	13p.
Berry, Wm. H.	The Malignant Typhus Epidemic of 1849	D.C.	32p.
Spindle, Philip ~~K.~~ S.	Measles	Va.	21p.
Clendenin, Wm. Hasslett	Peritonitis	Md.	29p.
Fendall, Joshua F. C.	Typhoid Fever	Md.	25p.
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Ebert, Edwin	Enteric Fever	Pa.	44p.
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Boon, Wm. Henry	The Puke Pulse	Pa.	19p.
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Fitzhugh, Wm. Hughes	Scarlet Fever	Md.	20p.
Blanton, Orville M.	Report of Cases	Miss.	20p.

Md.
Coll.
Theses
1850

An

Inaugural dissertation

On

Chronic Incised Ulcer,

Submitted to the Examination

of the

Provost, Regents, and Faculty of Physic,

of the

University of Maryland,

for the degree of M. D.

by

John T. B. McMaster.

of Maryland.

1850.

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Olenum Jecoris Asselli

This is a fixed oil obtained from the Livers of the Cod Fish. The Ladies Museum of Naturalist, Several Varieties of this oil are met with in Commerce which differ from each other, by their brightness or darkness, hue. The clearest sort is more palatable, but several Physicians affirm that they have found the darker variety more efficacious. According to Rieckes the Livers of the Fishes above mentioned are cut in slices and exposed to the rays of the Sun, and the oil collected as it runs out in suitable Vessels; that which is first obtained resembles fine olive, or Poppy oil and is called the Pellow Cod Liver oil, if the Livers are running gradually down into putrefaction the oil becomes of a brown Chesnut color, and again

after the oil has been obtained by the above method some can still be procured by boiling the Livers, which constitutes the impure oil. According to Mr Deakin impurities of the oil may be detected, by mixing on a porcelain Slab, four parts of cod Liver oil, and one part of strong Sulphuric Acid, when if it be genuine a rich Violet hue is produced which in a few moments passes gradually into a dirty brown color. this remarkable Characteristic he observes, "is not met with in any other oil animal or Vegetable." Litmus paper is partly reddened by the clear, and coincidentally so, by the brown variety, both are soluable in Alcohol and Ether. Cod Liver oil has been used in Northern Germany, Holland, and England as well as in this Country; but it is

only comparatively of late, that it has attracted the attention of Physicians. In England it was first recommended by Percival and in Germany by Schenk. by whom it was first used in this Country, it is impossible to say. When first administered internally it excites a disagreeable taste in the Mouth and produces nausea, yet persons soon be=come accustomed to its taste and smell, and I have seen Children take it without the least repugnance; when the nausea is once overcome it does not oppress the Stomach, except when the digestive powers are greatly enfeebled, nor does it seem to destroy the appetite. Chemical research teaches us that Cod Liver Oil should be considered as a very compound substance, Greasy neutral matter, Billious matter, Iodine, Phosphorous, Each known

as possessing great remedial powers,
also a certain number of organic
elements - such as Butyric Acid, Gadeine,
and some others the medical action
of which is less known; finally various
inorganic Salts - as Phosphate, and
Sulphate, of Lime. Chloride of Lime,
and Sulphate of Magnesia, and the
substances of which it is composed.
But it may be asked to which of
these substances does the oil owe its
virtues, is it to the Iodine, Fatty mat-
-ter, Phosphorous or other principles?
According to Dr. Hughes Bennett, the
Therapeutic action of the oil is
dependent essentially upon it - being
a Fatty matter, perhaps more easily
assimilated to the economy than any
other Kind of Fat, he thinks the
views of Hetherson, fundamentally
Correct, with this difference, that

instead of oil and albumen uniting to form elementary cells, they only unite to form elementary molecules and granules, from which nuclei and cells are formed. To him it appears certain that in Chronic Rheumatism, and Tubercular diseases, the albuminous compounds are in excess, and the oily compounds are diminished in the economy; the direct application of the latter, to the former, is therefore the most rational mode of treatment. It may reasonably be argued that if the theory of its action as a fatty matter, be correct, any other kind of oil would be equally efficacious, and certainly there are many which are more agreeable to the Palate; Experience however has decided this question in the negative. The reason of this probably is, that continued doses

of the purest Vegatable Oils as that of Olive, and Almond, are more or less purgative, and thereby diminish, instead of improve, the Strength; it may also happen that the pungent properties of Cod Liver Oil may have a favourable influ=ence in retaining it on the Stomach and rendering it more digestible, lastly it appears reasonable that an Animal Oil should be more Easily assimilated than a Vegatable. It is on this account that in every disease of a Rheumatic, or Tubercular nature, attended with impairment of nutrition and connected with Emaciation weakness &c, that Cod Liver Oil is directly indicated; it op=erates by imparting to the System one of the Elements necessary for the nutrition of the Animal Economy

in cases when that Element is essen-
-tially deficient. Cod Liver Oil has
no effect on the secretions except
on the Urinary, and cutaneous, depu-
-rations, on the Animal Organisme
it improves the general Health and
increases nutrition as I have observed
in several cases that have fallen under
my observation, This Oil has been used
in several diseases with very good
effect, an account of which will be
found below. In Chronic Rheumatism,
according to Alexander, Amelung, Basse,
and others, who have all published
their observations concerning the Cod
Liver Oil; this medicine possess such
an efficacy that it surpasses in their
opinion all the other remedies now in
use, without excepting the most famous
Anti-rheumatics. This opinion of different
Physicians who have all experimented by

themselves, cannot be taxed with Exag=
=geration if it is considered that amongst
these, cases of Rheumatic patients—being
cured who after many Years of suffering,
and usage of all sorts of treatment
having at last lost their strength and
despairing of relief, were completely
cured by the aid of this remedy.
In Rachitis Cod Liver oil has been
used with the happiest Effect, such is
nearly the unanimous opinion of the
Dutch, and German, Physicians who
declare with one accord that it is
much superior to any thing they have
ever used in this disease. Dr Schmidt
who has most insisted on the advantages
of this medicine says, "that in twenty-
one Rachitic patients—which he had
treated up to the time when he made
known his results,—thirteen were cured,
four were in process of being cured,

as for the others judging from the progress they had made for so short a time they were under treatment, a very favourable prognosis might be drawn." The French Practitioners have been far from partaking of the enthusiasm of the German, and Dutch, Physicians, for this medicine, they have kept on their guard with perhaps too much distrust, but its remedial powers has nevertheless appeared to some of them to be placed beyond doubt. It is in these words that Professor Trousseau expresses himself on this subject, "we have obtained Cures the rapidity of which greatly surpassed our expectations, after four Days of treatment the sharp pains which Children feel in their Limbs ceased; and the Bones which could be bent with ease required at the

and of five Days considerable solidity."
Although there are various reports published in support of the efficacy of Cod Liver Oil in, Scrofula, it requires something, candidly speaking, which will prove its remedial powers ~~over~~ in this disease with certainty. The cause of this doubt should not be looked for in this circumstance, that the Cod Liver Oil is less applicable in the Scrofulous diathesis than in certain of the more severe forms of Scrofula, but that Physicians are in the habit of only publishing their observations of the more severe cases. Amongst the fact relative to the use of Cod Liver Oil in Scrofula, the most remarkable are those which Doctors Brefeld, and Rappe have made known, the result of which is that this medicine univer=
=sily, is fit for all forms and kinds

of Scrofula. This Oil is considered by them a certain and infallable remedy in swellings of the Lymphatic Glands of the Neck, and Axilla which appear oftenest under the form of hard unequal tumors nearly immoveable, and insensible, but which afterwards when Inflammation has laid hold of the Cellular tissue which surrounds them, and the Skin which covers them, become Inflammed and suppurate in their turn; the Cure always requires a much longer time when these swellings are Connected with a firm Scrofulous diathesis, this also can be advantageously influenced by the Eternal use of this Oil by frictions on the painful and Inflammed tumors. This mode of using the Medicine is that which has been practised, and which is recomended

by the greater number of Practitioners in this form of Scrofula. It is said to be useless in swellings of the same Glands which are developed in the course of Syphilis, Small Pox, Measles, Scarlatina, Etc. The Cod Liver Oil has been found equally useful in some of the Chronic Exanthemata which are developed in the course of Scrofula, whether they occupy parts covered with Hair or not, in these cases some say they have obtained the best results from the internal use of the Oil, while others on the contrary say that they have procured equally as good results from the external use of the same remedy. The ~~first~~ usage of it externally, was tried for the first time with success by Dr Guerard, for Tinea Capitis, and is strongly recommended by Dr Brefeld who says "I have

never obtained any good results from the internal use of the oil in this Exanthematous forms of Scrofula".

Dr. Dauf reports a case of Lumin Herpes causeing an insupportable Pruritis, which was cured by the Internal use of Cod Liver oil. It only remains for me to notice in this dissertation the use of Cod Liver oil in Phthisis Pulmon= =alis, and if there is a remedy on Earth that can give to those afflicted with this "fell destroyer of the Human Race", the least chance for recovery, it is the one now under Consideration. The Effect of the oil in many cases of Phthisis is very striking, and is well seen in private practice, as well as in Hospital and Dispensary practice. Individuals presenting Emaciation, profuse perspiration, Constant Cough and Expectoration, as most prominent Symptoms, with a degree

of weakness that prevents their standing alone, after a few weeks use of the air, and enabled to get up with ease, and walk about with a visible improvement in their general Health, and an increased amount of Flesh; the physical signs may remain unaltered for some time, but it is said that if the remedy be persevered in, that they also disappear. Dr. Bennett (of whom I have before spoken) has succeeded in ascertaining, in several cases that Cavities have completely filled up, every Symptom and physical sign indicating their presence having disappeared and only slight dullness on percussion, and increased vocal resonance remaining, as a proof of the puckering, and induration, attendant on the Cicatrix; but I need not refer to practitioners of other Countries to

attest to the efficacy of Cod Liver
oil in Phthisis, but I can appeal
to Physicians of this Country, who have
had experience in its use, and who,
so far as I can ascertain, are ready
to bear witness to its great effects;
and not to them only, but to the many
poor creatures who have labored
under this opprobium medicinum,
and who have been snatched, as
it were from the jaws of Death
and placed in the enjoyment of
comparative Health, by the use of
this remedy. I may say that not
only has Cod Liver oil been found
efficacious in the diseases, of which
I have spoken, but in all cases of debil-
-ity arising from imperfect Nutrition,
it has a reparative property not
met with in any other remedy, and
which alone should be sufficient to

recommend it to the favorable notice of the Profession.

With these remarks on Cod Liver Oil, Gentlemen, I must bring my dissertation to a close, fearing that in many part it is imperfect, but unable to make it more acceptible to you, I leave it for your consideration, hoping that if you find any thing out of place you will excuse it.

John T. B. McMaster.

An

Inaugural dissertation

on

Pneumonia

Submitted to the examination

of the

Provost, Regents and Faculty of Physic

of the

University of Maryland

for the degree of

Doctor of Medicine

by

Jos. J. Anthony

of N. Carolina.

Feb. 1850.

respiration is lost in the suppurative stage the sputa sometimes looks like bone pus, and it is said that patients have been known to expectorate portions of the lung which in fact is, the only sure evidence we can have of the existence of this stage. In gangren of the lung they are of a greenish colour, emitting a foetid odour exactly like gangrene in external parts.

The fever in Pneumonia varies extremely in degree. at one time it is so slight as to be hardly noticed, at another it is of the highest grade, the pulse sometimes rising as high as one hundred and forty, or fifty. It is generally higher in the evening, and usually attended with agravation of all the symptoms. The pulse is strong, the skin

it shows that unoxidized blood is circulating in the brain.

Treatment. In the treatment of Pneumonia, we must be governed by our knowledge of the state of inflammation. For we know that what would be beneficial at one time, would be of no avail at another, but actually hurtful. And this is one of the many diseases in which if our treatment does no good, it is sure to do harm. Now we know that in all inflammations increased quantity of blood constitutes the most important feature. Then it follows as a matter of course, that the most effectual way to combat the inflammation, is to remove that blood. If called early in the case the first thing to be done, is

to bleed freely. As to the quantity of blood to be taken, some say fifteen, some twenty ounces at first, and repeat if necessary. I would say let the blood run until some decided impression is made on the pulse. It is astonishing to see what effect this bloodletting will sometimes have if properly applied. Often the pain and dyspnoea will be relieved in a few minutes. How the depletion is performed does not matter much, perhaps the best way is to take blood from the arm, as it can be done more rapidly and with less inconvenience to the patient. When it becomes necessary to use more caution, we may apply cups and leeches to the chest. Here bloodletting does good not only as in other inflamma-

tions but it diminishes the labour which the lung has to perform in aerating the blood for other parts. After we have pushed this means as far as is safe, and find that the disease is still progressing, we must resort to others. The best thing we can do now is to promote absorption and expectoration, by using mercury and antimony. Dr Watson says, the antimony is best suited to the first stage, the mercury to the second and third. The tartar emetic should be given in small and repeated doses. To prevent its producing emesis, it should be combined with opium. If this fails to check the disease, and we find that it has reached the second stage, we must now endeavour to bring

the system under the influence of
mercury as soon as possible. The best
way to do this is to give the calomel
in small and repeated doses, say
two or three grains combined with
a little opium. If this does not suc-
ceed, we may try the plan of rub-
bing in the ointment or the mer-
curial bath. Blisters which were
inadmissable before, may now be
applied to the chest. If the disease
continues to grow worse, and we
see that the patient is begin-
ning to sink, we must pursue
an entirely different course.
Now it becomes necessary to use sti-
mulants, we may give ammonia,
cordials, and wine. whey. he may
also give strong teas during the dis-
ease purgatives are not required.
Though it is necessary that the patient-

several hours. It is increased by the movements of respiration, by coughing, and by pressure. It is also greatly exaggerated by lying on the inflamed side.

The dyspnoea is in proportion to the extent of inflammation, and varies according to its situation. It is said to be modified in some measure by the idiosyncrasy of the patient. Thus while in one individual little inflammation will cause very great dyspnoea, another from the same amount will suffer very little. It is not very prominent at first but increases with the disease. In the second and third stages it is sometimes so intense that the patient is compelled to sit up in bed.

The cough is generally present ear-

should have one passage every day. If required, enemas may be given for this purpose. During convalescence, the diet should be mild and unstimulating. The room should be kept moderately warm, and visitors not admitted, as talking is always injurious to the patient.

ory, and sometimes there is delirium. The blood will generally present the buffy coat, the urine is scanty and high coloured.

The causes of Pneumonia are numerous. the most common are exposure to cold, sudden changes in the weather, breathing noxious gases &c. In fact anything which inflicts irritation on the lungs, or has a tendency to produce accumulation of blood therein, may be a cause of Pneumonia. It often accompanies or is the consequence of some other disease, as for instance Bronchitis, measles, and Typhoid fever.

Pneumonia is most prevalent in winter and Spring, but is sometimes met with in Summer and Autumn. It is peculiar to neither

age or sex. It is most common in adults, and in men, very probably owing in the latter case to their being more exposed. The inflammation is most apt to occur in the right lung, but why I do not know. It may also exist in both lungs at the same time.

According to the changes which take place in the lung, Pneumonia is divided into three distinct stages. First engorgement, when the lung is loaded with blood and serum, second hepatization, from its resemblance when in that state to the Liver, and third into the suppurative, or softening stage. Sometimes there is a fourth called gangrene, but is rarely met with as the third is apt to be fatal.

As these different stages present phenomena peculiar to themselves, I shall take up the pathology of each in its turn. and in connexion, the physical signs by which it is detected.

In the first stage the affected portion of the lung is completely loaded with blood and pothy serum, at the same time its weight and density are increased, but it will still float in water. Its cohesion is diminished so that it can easily be torn or crushed, it pits on pressure but crepitates. The lung and mucous membrane of the small bronchi are of a deep red colour.

Here we have the crepitant rale or small crepitation, supposed to be produced by the bursting of small

air bubbles; or the separation of the adherent walls of the vesicles. This sound resembles that produced by rubbing a lock of hair close to the ear. Another very good representation is made by placing a small quantity of salt on a hot shovel, or again by rubbing a piece of thin dry parchment. This sound is always heard in the first stage, and is peculiar to Pneumonia. As long as the respiratory sound predominates over this, we know that the inflammation is slight and has not passed into the second stage. On the other hand when the crepitation predominates, so as to mask the respiratory murmur there is reason to think the disease is getting worse. Now this state of things cannot last-

long. There must be a change for better or worse. If for better the crepitant-tale rale gradually subside, and the respiratory murmur return. In the beginning of this stage percupsion does not avail us much. but later there is some dullness on the affected side.

In the second stage the lung no longer crepitates. It is of a dark red colour almost black. If the lung be cut into the air cells being clogged up with serum, have the appearance of small granulations, owing to the absence of air the matter exuded is not frothy as before, but more of the liquid form. The weight is increased enough now to make the lung sink in water. It is more friable than before, and can easily be

there there is decided dullness on percupion.

In the third stage, the lung is so rotten it can hardly be handled without being torn. It is not so red now as in the second stage, but more of a greyish or ashy hue. If cut or torn small drops of pus issue from it, and if a cavity be made in it it is soon filled with this fluid.

Now it is almost impossible to distinguish this stage from the preceding by any Physical sign, however besides all the symptoms of the second stage, there is expectoration of pus, and in some instances portions of the lung are said to have been expectorated. If course such a thing as this would be conclusive.

Prognosis) Although Pneumonia is a disease which requires prompt and decided treatment, the prognosis is not necessarily grave. It most always yields to treatment if taken in time, that is in the first stage. Sometimes patients recover from the second but whether any have ever gotten over the third stage is not known, nor should I think this possible. When Pneumonia occurs in tollerably healthy individuals it rarely proves fatal, but in constitutions broken down with other malidies, it is a dangerous disease. Great difficulty of breathing, quick, and regular pulse, and colliquative perspiration, are all unfavorable symptoms. Delirium is another unfavorable sign.

Pneumonia

By this term we mean inflammation of the substance of the lungs.

The symptoms which characterize Pneumonia are, pain in the chest, difficulty of breathing, cough with peculiar bloody sputa, change in the respiratory murmur, dull sound on percussion, more or less fever, and not unfrequently the disease is ushered in with a chill. As these symptoms are important I will notice them more particularly.

The pain in Pneumonia is somewhat different from that in Pleurisy, being more a sense of soreness instead of the sharp stitch in the side. Sometimes the pain precede the other symptoms for

ly in the disease, and continues throughout. At first, there is nothing remarkable about the sputa, but after two or three days they begin to assume their peculiar character. When the small crepitation is distinct, they are rusty and viscid according to the amount of blood which they contain. They are of a yellow, brown, or deep red colour. At the same time they adhere together so as to form a complete mass. They are sometimes so tenacious as to stick to the walls of the vessel when it is turned upside down. Now the sputa give us some information as to what is going on in the lung. As they increase in viscidity, the chest on percussion yields a duller sound, and the small-

An

Inaugural Dissertation

on

Dysentery

Submitted to the examination of

the

Provost, Regents

and

Faculty of Physic

of

The University of Maryland

for

The Degree of Doctor in Medicine

by

Mahlon K. Baldwin

of Loudon County

Virginia

— March 1850 —

Dysentery is an inflammatory disease of the lining membrane of the intestinal canal, inflammation being first set up in the large intestines, and not restricted to them particularly but frequently extending into the smaller.

This disease is sometimes ushered in with slight chills alternating with flushes of heat, want of appetite, bad taste in the mouth, dry skin and depressed pulse, but its more characteristic symptoms are griping pains in the bowels followed by frequent mucous or bloody discharges straining and tenesmus.

The difference between Dysentery and diarrhoea may be obvious, from the fact, that there is retention of the natural faeces in Dysentery, or they are discharged from time to time in small indurated balls (termed scybala) whereas in diarrhoea the discharges are always faecal-

Again, in Dysentery the symptoms most prominent and constant, are Stools combined with the excretion of mucus tinged with blood, accompanied with straining and tenesmus which form no necessary features in diarrhoea. These nosological distinctions are useful and also true, notwithstanding they are not always strictly observed during the practitioners attendance in this disease

Tenesmus is one of the most violent and characteristic symptoms attendant upon this affection, and by an observance of this painful symptom a pretty true idea may be afforded of the danger of the disease. Dysentery is said to consist chiefly in inflammation of the large intestines, yet it is apprehended that the whole of that long surface is not indiscriminately affected

Observation of the course of the disorder during life connected with the morbid appear

= ances after death will teach us (in Dysentery
marked by tormina tenesmus and frequent
dejections of sanguinolent mucus without
faecal matter) that the inflammation
chiefly affects the rectum and descending
colon

In speaking of the symptoms that
constitute dysenteric diarrhoea reference
is generally had to the unnaturally fluid
State of the excrement which is the case
when earlier portions of the intestines
are involved in the disordered process.

Great difficulty in voiding urine some-
times occurs in consequence of sympathetic
irritation exerted through inflammation
of the lower bowels. The tormina are
generally most violent and distressing
just before the urgent calls to stool are
experienced and especially when there is
a constant soreness of the abdomen.

Sometimes the stools consist entirely

of intestinal mucus, even when there seems to be a considerable degree of inflammation which is most probably more diffused than where the discharges are tinged with blood. However blood is frequently discharged with the mucus and in some cases when the inflammation is very extensive the discharges consist wholly of blood. Now these discharges will have a very peculiar disagreeable smell, yet no fetor in the beginning of the disease. But in the advanced period of the disease or in violent cases, they generally have a very offensive smell, and frequently acquire a corroding and sanious character.

In some cases there is very little sympathy of the heart and arteries with the local mucous inflammation, the febrile phenomina being hardly perceptible but more commonly the fever is of a high grade. In protracted cases where the disease is

unsubdued, great prostration ensues, the pulse becomes frequent, small and corded the countenance contracted, and cadaverous the gums tender and swollen, the skin harsh and the abdomen tender, elastic and sometimes flat, the breath offensive and even after these bad symptoms have come on an occasional amendment occures, yet this cessation does not last long, for although the tenesmus and tormina remit, the pulse rises and becomes better, the restlessness will increase, the countenance then becomes hippocratic, the stools liquid, dark sanguent and offensive, the extremities cold and the surface of the body moist and clammy, the fatal termination being preceded a few days by colliquative diarrhoea. At first the tongue becomes covered with white fur, but during the progress of the disease the fur becomes brown, dry and rough along the middle

with red and moist edges.

In cases of subacute or protracted character the edges and tip of the tongue generally become clean, smooth and florid, and when it becomes red and granulated, the disease may be said to have assumed the chronic form.

When the urine becomes scanty high colored, and especially if it become green and pungent, a true diagnostic sign will be afforded of the danger of the disease and of its aggravated form.

During the active period of the malady the cutaneous and hepatic functions are invariably inactive, the skin becoming obstinately dry, the alvine evacuations generally free from bile.

Causes

Atmospheric vicissitudes have a manifest influence in the production of Dysentery by obstructing the perspiration, and thereby

causing mucous inflammation of the intest-
-nal canal. When rains succeed to long
continued droughts, the disease is most
virulent especially in tropical climates

In regard to this and other bowel
affections vicissitudes of heat and cold
combined with vegitable effluvia are
probably the greatest predisponents to this
malady. Some suppose malarid to have
and unequivocal agency in the production
of this disease, whilst it is doubted
by others that paludal exhalations of
themselves have any agency towards pro-
ducing the disorder. But in hot marshy
countries their influence in modifying
its general character is evident, from
the fact that it partakes of the nature
of billious remitting fever and pure Dysentery

An alternation of Dysenteric symptoms,
and intermitting fever is not uncommon
in marshy districts, and indeed Dysentery

seems to be the production of the united influence of malaria and atmospheric vicissitudes which no doubt always cause torpor of the cutaneous and hepatic functions either directly or indirectly by producing or checking perspiration.

As malaria is produced by high atmospheric temperature, it has a great tendency to excite the mucous exhalents to inordinate action, whilst both malaria and heat tend at the same time to increase the biliary secretions.

Experience has shown some that malaria must necessarily be present with other predisposing causes, in order to produce malignant Dysentery

If a person be exposed to the cool night air after a scorching days sun, whilst malaria is present in the system the exhalents of the surface will be rendered torpid the blood will consen-

-trated to internal organs, the liver with other internal organs will become congested and this congestion of the portal system will give rise to intestinal inflammation

There is no satisfactory evidence that Dysentery is a contagious disease for in its sporadic form in our country we never see it spread from person to person notwithstanding in some of its epidemic visitations of continued fever (which undoubtedly is contagious) it may be regarded as a prominent symptom, and from this fact, some might be led to believe that simple Dysentery is a contagious disease. The pyrexia that is attendant upon Dysentery occasionally commences, before the local symptoms make themselves manifest, but more frequently it succeeds their occurrence.

Sometimes the fever runs high, the skin becomes hot, the face flushed, the

tongue furred), the patient complaining of headache and thirst (but in this like all other abdominal diseases) the patients strength declines rapidly the pulse soon becomes small and weak and the temperature of the body sinks to a considerable degree. In acute cases the pain is frequently severe yet it is subject to exacerbations.

The pain is situated in some part of the colon or in the hypogastrium where there is generally more or less tenderness upon pressure. the patient goes perpetually to stool, feeling a sensation as if there were excrement ready to be dislodged; this causes irresistable straining to get rid of the irritation, but the efforts are almost in vain he expels but a small quantity each time which assimilates a jelly like mucus or mucus tinged with blood, mixed with

membranous shreds that resemble flesh.

There is no faecal matter in many of the evacuations, and they sometimes come away in small indurated balls. Now the ejected mucus frequently becomes horribly foetid, and of a variegated color, green, black, or reddish, like the washings of meat. There is often pain and difficulty in voiding urine in consequence of the irritation of the rectum concentrating upon the bladder through the reflex action of the lower portion of the spinal cord.

Sometimes nausea & vomiting ensue from sympathetic influence exerted by the stomach. Obstinate vomiting will general ensue, if there be stricture or invagination of any portion of the intestines.

Connected with all these local symptoms there is much febrile excitement and distress, the patient sleeps but little, has bad dreams

that cause him to be low spirited and desponding, the features sharpen, the pulse becomes very small and frequent, the surface grows cold, and death closes the scene.

Pathological Characters.

The large intestines in recent subject are found to be very much contracted, and if the disease have been of long standing, they will be considerably dilated. There is also more or less ulceration of the colon, its glands are generally enlarged and prominent, resembling small pox pustules, for which they are sometimes mistaken. The mucous membrane both of the colon & rectum is sometimes injected and ulcerated.

The enlarged glands most probably form the faci of the ulcers which are frequently narrow and oblong, lying transversely upon the mucous surface of

the intestine. Sometimes quite irregular and very large with here and there ridges ~~ridges~~ of mucous membrane.

The mucous membrane in such cases is usually of a brown color, in patches. In protracted cases deep ulcerations are apt to exist along the transverse bands of the colon, sometimes with extensive sloughing and mortification of the part. The parts bounding the valve of Bauhin are frequently studded with brown pustules, caused by inflammation of the mucous follicles. The mesenteric glands opposite the seat of inflammation are sometimes found tumefied, red in the earlier periods of the disease and brown or black at a later period.

In some of the worst cases the internal portion of the bowel presents an irregular and confused mass of disorganization

Prognosis

If the discharges consist chiefly of blood the disease is more manageable than when they are composed of mucous tinged with blood. Copious evacuations of blood in the commencement of the disease are favorable because of the relief they give to the portal system.

In the advanced periods of the disease where colliquative and fœtid discharges occur the patient may be considered in imminent danger. also when the stools consist of a mucous anious fluid. and there is a tympanetic state of the bowels, the prognosis is unfavorable.

The appearance of natural faeces accompanied with bile denotes a favorable change. If the tenesmus tormina and tenderness in the abdomen abate. and at the same time the skin becomes uniformly moist. the disease

may be regarded as tending towards convalescence and especially if the stools have assumed a natural appearance.

Treatment

When this disease is submitted to early treatment and when its exciting causes can be averted, it is not considered an intractable disorder. Dysentery may be divided into two stages. The inflammatory stage & stage of ulceration, both requiring opposite modes of treatment. It may be advisable in sporadic and sometimes in endemic cases to resort to general depletion in conjunction with local bleeding over the region of the colon by means of cups or leeches.

In simple cases of the disease has frequently yielded after the administration of a few doses of Oleum Ricini which frees the intestines from the morbid matters that are necessarily poured into them

But in epidemic cases the treatment must be regulated according to the exigencies of its prevailing characters and in cases that are accompanied by signs of great prostration and that run their course to a fatal termination so rapidly (as was witnessed during the past summer in the district in which I resided) that the strength may have to be supported, upon the one hand whilst upon the other, every effort will have to be made to induce a new action upon the System by mercurials.

It is a common remark with some practitioners, that if they can only touch the mouth with mercurials (in cases that prove obstinate) that the disease will yield. But such has not always been the result of my Preceptor's experience Indeed observation (during the last summer) has taught me that the system may be brought under the influence of mercury

and yet the disease proceed to a fatal termination.

On the other hand where there is great concentration of action towards the seat of the disease, it is with considerable difficulty that a mercurial action can be induced. Mercury may (in such cases as are cited above) be administered to a considerable extent without producing any sensible effect. Bloodletting may then be practised with great benefit by diminishing the intensity of the inflammatory excitement and thereby promoting absorption, which will immediately afterward render the effects of mercury apparent.

Some think bloodletting should be considered only as an auxiliary and applicable principally in the early stage of the disease, because epidemics occur in which the fever is of a typhoid type, and in which cases, the abstraction of

blood would be entirely inadmissible, or the concomitant fever so slight as not to elicit bleeding at all. However, if the disease be of an epidemic or malignant character, a full bleeding should first be procured from the arm, and then laxative medicines alternating them occasionally with opiates which will generally arrest the disease, but if such form of disease be left to purgatives alone, without previous depletion it not unfrequently terminates unfavorably

Some authors express their belief that epidemic Dysentery may be cured by opium alone if administered in the incipient stage of the disease, and that boldly, from one to three grains every three or six hours until its narcotic influence begins to display itself.

Others take drastic purgatives as their sheet anchor in this disease, and therefore think to cure by dislodging

and evacuating scybala which they suppose to be always present and to the immediate irritation of which they ascribe the disease They therefore instead of lessening the inflammation ~~irritate~~ the mucous membrane & light up inflammation afresh, and hurry the malady onward, to a fatal end.

Notwithstanding the above mode of treatment is by all now condemned yet it must be admitted that even the mildest cathartics will sometimes cause griping pains and spasmodic contraction of the intestinal tube and therefore will almost wholly obstruct the faeculent discharges

Under such circumstances Opium is the very best remedy that can be administered, for so far from impeding the action of the medicines it will promote it, and render the discharges faeculent copious and less painful.

The treatment that

proved most successful in the hands of my Preceptor (Doct. Thos. Leith) during the past summer (when dysentery appeared in its most malignant form) was a full bleeding from the arm (if the pulse indicated it which was generally the case as the disease was of a highly inflammatory character) succeeded by a full dose of Protochloride of mercury, from ten to twenty grains according to the urgency of the symptoms. Then after twelve or fifteen hours, a combination of calomel, Ipecac and opium, in the form of pills, two grains of the former to one or half grain of each of the two latter every three or six hours according to the demands of the case, also an occasional dose of castor oil was given, ice and cool mucilaginous drinks.

Emetics are sometimes efficacious in the very commencement, to remove acrid accumulations when the

stomach is overloaded (as it frequently is) with irritating fruits which sometimes cause nausea and frequent efforts to vomit. As regards the use of this class of medicines Ipecac is probably the best, from its mild action and refrigerent power

Oleum Terebinthinæ is exceedingly useful in the latter stages, especially during the stage of ulceration when mild stimuli are so strongly demanded, for in such cases the patient is frequently in a state of extreme prostration and necessarily requires mild stimulants or mild laxatives that have a stimulant effect. Oleum Terebinthinæ being one of those agents, cannot be too strongly recommended in such cases, given in combination with castor oil, or some demulcent if administered alone.

Saline purgatives are highly recommended by part of the Profession in this disease and no doubt on account of their refrigerent

virtues. As refrigerents are strongly indicated in Dysentery.

Sodae et Potasae Tartras is especially recommended because of the mildness with which it acts and the cooling power it exerts. This would probably make it almost a specific in this disease, for the mucous membrane of the intestinal canal, being already inflamed would be very easily irritated by any active cathartic notwithstanding its refrigerent effects, whereas from the mildness of the action, and the peculiar refrigerent effect this saline exerts upon the mucous surface of the intestines. there can be no doubt but that it must be highly efficacious in this disease. Although I have never seen it tried I have every confidence in those of the learned body (under the immediate instruction of whom I now have the honor to be) who have spoken of it it more than once as being

an invaluable remedy in Dysentery

I could mention numerous other remedies that have been recommended in Dysentery but deem it unnecessary, trusting that you will think it only requisite to keep them in mind, and resort to them after those mentioned have failed.

An

Inaugural Dissertation

On the

Influence of Climate on Disease

Submitted for the examination

of the

Provost Regents and Faculty of Physic

of the

University of Maryland

for the Degree of

Doctor of Medicine

By

Noah S Tilden

Somerset County

Maryland

A. D. 1850

The influence of Climate on Disease.

It is with great pleasure, that I comply with the time honored custom of the Faculty of the University of Maryland, in presenting a "Thesis written on some subject connected with medical science". The perplexity of selecting a subject from the wide domain of medicine, has been one of no ordinary anxiety. In choosing any one of the "Special Diseases," a student must from the nature of the subject, be little else than a copyist, because experience and practice are necessary for the production of an original or finished paper on any one of the "Ills to which flesh is heir". The adoption of the subject of Climate, was suggested to my mind by the perusal of Doct. Forry's work "On the Climate of the United States," to which I am indebted for much information. Though to one of my lim-

ited experience and observation, the ques=
tion presents many embarrassments. Ba=
=ving however see further preface, I will
proceed to detail such impressions as
its perusal has suggested.

By Climate is to be understood the
aggregate of all the external physical cir=
cumstances, appertaining to each locality
in relation to organic nature. The amount
of rain that falls in a given time de=
pends upon the energy of evaporation, and
the latter upon the degree of heat;—
these together with the prevailing winds,
are very intimately connected with the
character of climate. Although the mean
annual temperature decreases, as we leave
the equator, yet there is scarcely any dif=
ference in the thermometer under the po=
lar circles. Hence it follows that the cli=
mate of the tropics is characterized much
more by the duration of heat than

by its intensity;— which perhaps accounts for the rarity of Rheumatism and Pulmonic affections in those regions, as it will be attempted to be proved in this dissertation, that those diseases are more common in climates characterized by the extremes of heat and cold.

Climate is modified by various causes and perhaps by none more than the physical geography of a country or locality: for this reason mere latitude can not be regarded as furnishing a true index to the state of an average climate— in proof of this, one instance out of many that might be cited will serve for the purpose of illustration. For instance, Fort Snelling (Wisconsin) which is in latitude 44°53'. Here we find the heat seven degrees warmer in summer, than it is in Key West (Florida) which is in latitude 24°33. The former may be regarded as an extreme, and the latter a

uniform climate. The important bearing of such facts in a medical point of view is at once apparent. The medical adviser in recommending a climate for an invalid, should never rest his judgment on latitude alone, but likewise take into the count the physical features of the proposed country. —
But how can this apparent contradiction to the laws of latitude, as noticed in the two places just mentioned be accounted for?
Evidently it must be in the modifying influence of the ocean. The equalising influence of lakes or other large bodies of water on climate is equally marked in high or low latitude. I might rest satisfied in stating these facts, and leave the explanation to the Natural Philosopher. Though, perhaps it may not be amiss to offer the following as the modus operandi:—
The surface of deep collections of water, from the peculiar constitution of fluids, has a

temperature different from the adjacent land. Like solids fluids conduct heat slowly through their mass, yet it is transferred principally in a copious flow by their internal mobility. The heated portions of a fluid float on the surface, whilst the colder sink by their superior gravity. According to experiments made on the lakes of Scotland, the impression of the seasons, do not penetrate more than 15 or 20 fathoms; below this point, a uniform coldness prevails. — Hence it is that the deep lakes of our most northern latitude, during the rigor of winter are not entirely frozen over. Hence too it follows, that when the cold air of these lakes approximates the freezing point, the surface of the water thus chilled descends, and according to the law of physics, that no two bodies can occupy the same space at the same time, the deep strata is forced up, which being much warmer than the superincumbent air, parts with its heat,

and thus materially modifies the temperature. In the Summer on the other hand, as water accumulates less heat than the land, the air becomes cold by its contact with the water, Vapor is formed, which absorbs caloric from all surrounding nature. Another modifying cause, though of much less importance is the influence of forests and vegetation upon temperature. They certainly tend to lessen the heat of Summer by affording evaporation from the surface of their leaves, and preventing the calorific rays from reaching the ground. for this reason Snow lies longer on the forests than on the plains, hence winter may be protracted from this cause. As the clearing away of forests and the cultivation of the soil, ~~in the~~ tend to facilitate the absorption and reflexion of the Suns rays, the temperature of Winter and Summer from these causes would be increased. From what has been before said, it must be admitted that ~~C~~limate to a great extent, is in-

fluenced by the physical geography of a country. Admitting this position it is but fair to assume, that Climates are ever unchangable, where the physical features of nature are immutable.

Having thus far considered some of the elements that constitute Climate, I will proceed to notice, the operation of these complex agents upon the living organs, which are still more complex in their functions. As the limits of this essay will not admit of a systematic arrangement, I will merely mention some of the more important diseases, premising with pulmonic affections. It would seem that changeableness or vicissitude of climate, is not so apt to produce Catarrhal affections as the extremes of heat and cold. It is stated by Dr. Forry, that after ten years close observation, that the Atlantic coast and region of the Lakes, are less liable to this disease than the interior, where the

~~Southern, Northern~~ extremes of the thermometer are more marked. The extremes of the seasons are the predisposing causes to all pneumonic affections. Hence the pneumonic Southerner, to get the benefit of his own climate should avoid all extremes, and as the Summer advances should seek the North, which corresponds to the winter he has just left, and vice versa, as autumn approaches, return to the South to get the benefit of his own winter, which corresponds to the Summer he has just left. It would appear to be a law, that in proportion as the high temperature of Summer makes an impression on the System, do the lungs become susceptible to the malific influence of the opposite season. In the Northern States for example, as cold predominates, little impression is made upon the animal economy, owing to the shortness of Summer, the annual ratio of Pleurisy and Pneumonia is low, because there is

little difference in the ratio of the seasons.—
In the South-West, which is remarkable for high and long continued Summer heat, these diseases occur in twice the ratio of the North. It is thus seen in Pleurisy and Pneumonia, that it is necessary to consider not only the degree of contrast in the seasons, but the duration of high temperature;— in other respects, the climatic law is the same as in Catarrhal diseases. In British America the deaths from diseases of the lungs is less than in great Britain. The law that Pneumonic diseases are less prevalent in those regions in which high or low temperature prevails, than in the intervening regions characterized by the extremes of both, is established by the system of Climate pertaining to the United States. In the British Possessions and in Florida, as little predisposition to pneumonary diseases is induced by the contrasted temperature of Summer

and winter, the usual exciting causes are the chief agents; and as the law finds confirmation in the fact, that pulmonary diseases are more prevalent in the middle regions of Europe, than at either extreme, we perceive in these results, the harmony that reigns throughout nature. Phthisis Pulmonalis, may be regarded, perhaps, as an exception to those Climatic laws, that govern in other pulmonic affections. It being essentially a disease of nutrition is more under the influence of moral causes, than the physical relations of Climate, unless a hereditary taint is to be avoided. — In the selection of a suitable Climate for a pulmonic patient, the nature of the complaint must correspond to the physical character of the Climate. If the disease is in the Bronchiae tubes, or of an inflammatory character, a humid relaxing atmosphere is to be preferred. If how-

ever it be one of inertia, marasmus a debility, the uniformity of the climate must likewise be secured, but avoid the sea-coast, and get the invigorating air of the interior. Both of which systems of Climate can be enjoyed in Florida.

The climatic laws that govern in Pulmonary diseases, appear to equally obtain in Rheumatism. The old idea, that moisture and vicissitude, were the sole causes in the production of these diseases, appears now to be pretty well exploded. In Canada, when the cold becomes so severe that the mercury freezes in the thermometer, Rheumatism is much more frequent, than in the moist humid atmosphere of Nova Scotia and New Brunswick, where the thermometer is seldom below 3 or 4. The main points thus far insisted upon

are that cold *per se*, is not favorable to the production of Rheumatism, Catarh, Phthisis, Pneumonia, Pleurisy &c. &c. but the marked excesses between the seasons, are the great predisposing causes.

Intimately connected with the subject of Climate is malaria, though my present limits will not admit of its receiving more than a brief notice. It would seem that it requires all four of the elements of the ancients for its production. That something more than heat and moisture is necessary for its generation, finds confirmation in the fact, that it never appears on ship-board, from the operation of these causes alone, though they are certainly present. That malaria, *mutatis mutandis* is generated in a ratio with the increasing temperature of season and latitude, appears to be all that we positively know about it.

It is now contended that decaying Vegetable matter is not necessary for its

production. It is conclusively shown from the published statistics of the British army, that Intermittent and Remittent Fevers, appeared among the troops, whilst encamped in Spain on dry rocky ground, and Sandy Plaines — evidence of vegetation no-where to be seen. So convincing to the mind of Dr. Fergusson, (the Reporter of these facts) did this circumstance appear, that he says: "Whoever waits for the evidence of decaying vegetation for the production these fevers, waits too long!" Perhaps pecuriar geological formations may throw some light on this subject, as there are formations that do not contain organic remains. Without attempting to solve the mysterious character of this Miasm, I will pass to the consideration of some of the more important malarial diseases. The identity between Diarrhoea, Dysentery, Intermittent and Remittent fevers in their origin, ap-

pears to be proved by the lately published statistics of the U. S. Army. At malarial posts, these diseases have been absent or present, in proportion as the causes that develop malaria have been abundant.- In the Spring and commencing Summer the former ~~have existed~~ generally prevails:- as the season advances and the poison becomes more concentrated and abundant, they have disappeared, and Intermittents and Remittents have taken their places, and that too in the same order as above mentioned, showing that Remittent requires a greater degree of heat for its development than Intermittent &c.

Are Southern diseases more fatal than northern? The affirmative is the answer. -

When we take into consideration the concentrated malaria, and elevated temperature of tropical regions, it would be reasonable to infer, a priori that diseases of high

Southern latitudes are more fatal than those of the North. Elevated temperature, independent of other causes is detrimental to health. The alimentary canal of the intestines by being constantly kept in a state of irritation, by the constant evaporation of cutaneous and pulmonary transpiration, a morbid condition is constantly assumed upon any parallel exciting cause. Diseases of the stomach and intestines are more frequent in Tropical than Northern climates; they are seen for the above reasons to be more liable to complications; the same may be said of Fevers, Cholera, Hepatitis &c.

The following ingenious theory of Dr. Chas Lee, of New York, on the influence of the Dew-Point, accounts for the same phenomina, in a somewhat different way. Without entirely subscribing to this beautiful hypothesis, I give it for what it is worth. It certainly possesses great interest to the Scientific mind. By the dew point is to

be understood that degree of temperature, at which moisture begins to be deposited, and this is ascertained by an instrument called the hygrometer. The quantity of vapor or steam in the atmosphere is constantly varying from variations in the temperature, and it even varies when the temperature continues the same.- When the air is nearly saturated, a slight diminution of temperature, causes the formation of dew, but if the air be dry a body must be considerable colder before moisture is deposited upon it; in that the dryer the atmosphere, the greater will be the difference between its temperature and the dew point. In other words, a low dew point is to be found in a dry atmosphere: at high dew point in a wet atmosphere. At a high dew point evaporation is performed very feebly but very energetically at a low dew point. Some medical philosophers now advance, that the state of the dew

point, has a greater influence in the production of disease than temperature itself. This arises from the fact, that a high state of the dew point, interrupts the healthy functions of the Skin and lungs, two of the most important organs in the body,- this excessive moisture prevents the proper decarbonization of the blood. As moisture is a good conductor it carries off the vitreous electricity from the system, which doubtless is intended to act as a vital stimulus. We find that highly malignant fevers, do not prevail where the dew point is below 70°.- The same is true of malarious. If we seek for the causes of the excessive mortality of tropical diseases, we shall find it in a dew-point of 70° 80°. Evaporation from the surface is either checked or the 50 ounces of fluid given of daily (24 hours) in a moderate dew point is disposed of through some other channel, constituting material

derangement to the vital economy. Many scientific men in England identify malaria and a high dew point, and account for the production of malignant fevers by the check thus given to the surface of the body. Its modus operandi however appears to be different, a high dew point, not only gives efficiency to malaria by checking its elimination from the system, but it acts chiefly by preventing the separation of Carbon by cutaneous and pulmonary transpiration; hence the increased biliary secretion in hot climates.

Inasmuch as there is a disease since lurking in our midst, that has thus far defied not only the laws of climate, but those of the art of medicine, a brief notice of its natural history perhaps may not be inappropriate. I allude to Asiatic or malignant Cholera. This mora pestis in its

gradual diffusion over the civilized and barbarian world, from the centre of Asia to the wilds of America, has surmounted obstacles that hitherto arrested the Plague. It traversed the Sandy deserts of Arabia and Persia, and spite of the Monsoons, crossed the Indian ocean, and subsequently the Atlantic. It existed under the most diverse conditions of Climate, Soil, elevation of temperature and moisture; equally on the arid Soils of the Eastern deserts and the marshy deltas of the Ganges and the Nile; equally at the level of the Sea, and at an altitude of 5000 feet; equally during the Summer heat of the Torrid Zone and the rigors of a Russian winter. The weight of authority is against its being contagious. The best explanation of its mysterious march, is to be found in the fol-

loosing remark made in the 14th century by Chalin de Vinario — "That all epi= demic diseases may become contagious, and all fevers epidemic!" In the United States its severity has been in= creased in malarious districts, but un= like its Russian peaks, the frosts of win= =ter have always checked its course.—

By Noah S Tider

May 10th 49

A report of four cases
Submitted to the Provost. Regents &
Faculty of Physic
of the
University of Maryland
For the Degree of Doctor of
Medicine
By
Geo. Thos Hays of Va.

February 15th 1850

Gentlemen. I am about to submit to your consideration, the Management and treatment of a few cases which fell under my notice. I will merely state what was done. Choosing remonedies which time, and experience have proved most efficatious. as taught me by my Preceptors, in the University of Maryland. Men, in whom I repose the greatest confidence, and for whome I have the most sincere respect, Who donot suffer prejudice to exclude from them, that which is founded on experience, science, and fact, because it does not coincide with their views, but except good coming from any source, And yet wrong Though it should spring from the highest

I am well aware Gentlemen that but little can be expected of one, who has not yet embarked upon the Practice

of his profession. The respected Professor of Therapeutics and Meteria Medica (during the course of 1848–9) truly said "That it took a lifetime to make a Physcian"; This, lends a hope, that slight mistakes will not cause a student, that which is more dreaded by him than death; a rejection!

I am aware I have much to learn; a great deal of which experiance, alone can teach, and which requires time, and close attention, to the changes in Nature to obtain it.

I would not have troubled you with cases; so uninteresting, but have chosen one, as the bases of a thesis upon which I would have writen, but thinking with Cullen, and Watson. "That its unfit for a person who has never seen a disease to attempt its particular history" this lead me to report a few cases I have seen

Case 1st

Intermittent Fever.

This case occured in a Lady about forty eight years of age. Stout, plesthy and enjoying excellant health generally. She lives in a healthy section of country, and where diseases arising from Malarious poison, were seldom or never known, unless contracted and brought there from infected regions. As it was in the case of this patient. She was sent for in the Month of August 1849, to visit a sister living in a Malarious section, and where Intermittents, and remittents, prevailed to a great extent. and who was sick at the time of Bilious remittent fever.

This patient remained with her sister, in this Malarious locality some five or six days, and then returned home. feeling pretty well,

but could not say she positively felt in her usual health. a few days after her return, she began to feel indisposed, and after being exposed a short time, to the heat of the sun during a ride on horse back, which she thought would be beneficial, was taken with headache, and a feeling of nausea, with a disposition to vomit, which was in a short time succeeded by a chill, and followed by high fever, which gave way to a sweating stage. the ague, fever, and sweating continued for some hours, and after these symptoms, complete intermission occured. The patient was now able to get out of bed, and go about the house, but didnot feel much inclination to move about. This chill come on near 12 Oclock, The next day patient was up greater part of the day, but-

feeling very much indisposed. Second day after Paroxysm, got up in time for breakfast - eat but little, as she had not much appetite, near ten O'Clock felt much more indisposed, towards eleven O'C felt so unwell, she was obliged to go to bed, and near twelve, felt nausea, and vomited a small quantity of bilious mater, and was immediately attack with a rejour, much more severe and of longer duration than the first, and was followed by intense headache, great heat of skin, and restlessness, lasting for some hours and which gave way to a third, or sweating stage, and leaving the patient much more prostrate than the first - In this second Paroxysm all the symptoms was aggravated and of longer duration than the first one

Seen the patient the day after

she had the second ague, found her lying down. And complained of feeling worthless, dull, and good for nothing. (to use her own language) Tongue a little whitish, Though not much changed, Pulse, small, and rather slow. Expression of Countenance, pale, and languid, with a dejected look, did not examion the Spleen and Liver, but do not suppose they were enlarged, as the disease had not gone on a sufficient length of time for them to be

This was a well marked case, and the diagnosis was perfectly plain and easily made out, Intermittent fever of the Tertian type.

The Paroxysms in this case were to be cut short if possible, as each succeeding one had a tendency to grow worse, and if not checked by the use of remedies, would in a short

time perhaps, run into some more grave form of fever, if it didnot prove fatal,

Treatment. As there was sufficient time for the action of a purgative, and also for the Quinia, to exert its specific effects before the occurrance of the time for the next Paroxysm, I ordered Calomel & Jalap in a full purgative dose, ℞ Calomel gr v. Pulv Jalap gr xij, and after it had done acting, to commence with Quinia, in three grain doses, to be given every Too hours, untill the time for the next Paroxysm had passed by- The patient would take about thirty six gr of Quinia during the intermission, decicded doses was considered necessary, This treatment had the desired effect in checking the Paroxysm Though the patient felt some Symptoms of its return as slight Chilliness, with some heat of skin, Now directed the patient to continue the Quinia, in doses

of two grains, every three hours, and continue this dose, untill the day for the Paroxysm to occur, when one, or two doses, of 2 grains should be given a sufficient length of time for it to exert its specific effects and prevent any disposition to a return of the disease. This period passed by without the least tendency to a return of the Paroxysm, The dose of two grains, every three hours was continued, for a few days, to prevent the recurrance of the disease and that the Quinia might exert its specific influence (as stated above) upon the Poison remaining in the system. This treatment put an entire stop to the disease, and was no doubt aided very much by the healthfulness of the Locality of her residence. This is a striking instance of the poisonous nature of Malaria, and proves that persons exposed to its effects

though it be for a short time only, is sure of an attack of some of the diseases arising from its poisonous ~~effects~~ influence upon the system

Case 2nd

Fracture of Tibia

This case occured in a Negro boy, aged about fortteen years, Stout of his age. good Constitution, and in good health, by being Thrown from a horse, and the horse falling upon his leg, fracturing the Tibia, near the Middle, and rubing the Cuticle of the internal Malleolis to about the size of a dollar, and at first sight gave rise to apprehensions least it might be fracture, with compound dislocation of the lower fragment at the ankle joint- which fears were removed upon carefull examination of the parts. the ankle was considerably swelled at the time, Examination was

made to find out wither or not the Fibula was broken, which was not the case. The Patient stated that he had raised upon his feet which he could not have done, if the Fibula had been broken. The Tibia was broken transversally, and near its middle (as stated before) Crepitus being distinctly felt, and pain was caused by ballancing the limb on the hand. There was but slight deformaty, not much ever occuring in fract ures where they are near the middle of the bone. Patient suffered a smart rigor.

Treatment. Splints was thought to be advisable, untill the swelling had subsided, as no fracture apperatus of any kind was at hand. The splints were applied of sufficient lenght to command both fragments of the broken bone perfectly, and was prevented from irritating by pads, and made to fit the limb. by folds of cotton cloths.

The splints were kept on for three days and was then removed, The limb being washed well, with soap and water, the Starch bandage was applied, The limb being first wrapped with a roller, and the pastboard, smeared with Starch, applied, and ajusted to fit in the neatly possible manner, (leaving a sufficient space to cover the ankle where the skin was rubed off) and the bandage applied over the pastboard keeping them in there place, The Starch bandage was not removed untill perfect Union had taken place, which time accomplished about six weeks, Union taking place without any deformity whatever, Attention was paid to the Circulation of the limb to see that it was not interrupted or interfered with by the Starch apparatus.

Patient needed no constitutional treatment

Could I have obtained Professional

Smiths. fracture apparatus. I certainly would have used it, as I am convinced of its superiority. The ankle was dressed with Simple Cerate, and afterwards with Basilicon Ointment, and healed in a reasonable space of time —

Case 3rd

Henry Bane. Aged twenty eight years, lived untill March 1849. in a healthy section of Country, and enjoyed good health never having been sick of any of the diseases arising or coming on from the poisonous of Marsh Miasmas. In March, of the year above named, he removed to a Locality, where Intermittent, and remittent fevers, prevail to a great extent, during the Summer and Autumn. This man being altogather unaccustomed to the poison of Malaria, rendered him more susceptible to its influence, than persons who had lived all there lives, in those

regions, who become as it were accustomed to the poisonous effects, and who suffer far less than Strangers, particularly the the Negroes. They appear from some peculiar Idiosyncrasy to be exempt to a great degree from its effects, and can live in districts with apparent impunity, where it would be certain death to a white man

This patient had an attack of Int ermittent fever in the latter part of Augu st, and had the Paroxysms checked by the use of Quinia, as he informed me, for some two weeks, when he had a return of the disease, which was more severe than the first attack, The paroxysms occu red every other day, and at the same hour, going through the Cold, hot, and sweating Stages, and leaving the patient with an entire intermission

Symptoms, Tongue but little aue tered, this rather whitish, Spleen enlarged

and protruding below the edge of the ri
bs. No enlargement of the Liver, that co
uld be discovered by the touch, or by per-
cussion. Some pain in the left side,
pulse small and rather weak. And Conjun
ctiva slightly jaundiced

Treatment, Calomel gr v. Pulv Rh
ei gr xv. This acted well. Quinia, was now
given, in three grain doses, every two hours, un
til the time for the Paroxysm to occur. This
treatment did not prevent its return, tho
ugh the Symptoms were not so bad, pro-
ving the Medicine exerted some influence,
directed patient to continue the Quinia
in the same dose he had been tak
ing, until the Morning of the day wh
en the next Paroxysm might be looked for
to return, when the dose should be in
creased to 9grs and given a sufficient len
gth of time for it to exert its effects,
say, six hours before the time for

the occurance of the next Paroxysm. This effected the head, and put a stop to the disease. Directed that he should continue to take Quinia, in small doses grij. every three hours for several days.

Advised patient to go to some more healthy Locality, as he would be subject to a recurance of the disease while he remained where he was, from any exposure, or imprudence, and perhaps the greatest caution not preventing a return, while he was exposed to the Pois on producing it- Patient consented to go to some more healthy place untill he should regain his health, and the Sequela of the disease was removed. Directed patient to take Compound Tinct Cinchona, to improve his system by its tonic properties, and to ward off a return of the Paroxysm should there exist any tendancy to a recurance. - Blue Mass, was given in vgr doses

every night. for three or four days, as it acted two or three times a day upon the bowels. which was disposed to be costive.

Patient improved very rapid after he left home, and the spleen also decreased to its natural size, aided no doubt by the Compound Pine Bark. which he continued to take for some ten days. He was then so well, that he considered the further use of the Bark useless

Had the Paroxysm been severe, and interferance requisite, opii. Bleeding warm Infusions, as Eupatorium perpoliatum &c might have been had recourse to

Case 4th Pneumonia — John Dempsy, Negro. Wood chopper by occupation, aged sixty years, lived in a miserable hut. Visited my assistance on account of some ulcers on the lower extremities, which were Syphilitic in their origin, disabling him in a degree from moving about — These ulcers from time to time manifested a disposition to heal and then break out again. Poultices were applied, and ten drops of Donovan's solution, given three times daily.

Several days after seen patient he seemed to be labouring under more distress than could be ascribed to his general condition. I remarked that his sputa, was rusty and sanguineous — that he was troubled with a slight cough. On examination it was found that the crepitant rale was distinctly audible, in the middle lobe of of right lung, on

the same side there was some bronchial respiration - Vocal resonance, The sibilant ronchus was heard in the upper lobe of left lung - He complained of some dissiness of the head. Face presented a dusky or purplish hue, Skin hot - Pulse frequent and not very full. Rp Pulv Ipicac gr j - Quinia gr i - to be repeated every three hours. I had some doubt about the propriety of bleeding, for it seemed from the nature of the sputa, and the information elicited by auscultation that the disease was carrying on a warfare against the cellular tissue of the lungs, which had not been attended to. This patients strength was depressed, and his pulse by no means solicited the lancet, Donovan's Solution was suspended

Next day (Monday) He slept but little last night, pulse is small and frequent - skin Cold and perspirable, appetite impaired

Tongue excessively red - Has some nausea.
bowels are open. The same physical signs
in relation to the chest as were heard yesterday
Has a troublesome cough, accompanied with
a free expectoration. At night he is restless
and insomnolent. Rx Calomel, Pulv Rhei aa
grs x. Ext Hyoscyamus grs v m. to be given
at bed time Tuesday. He says he slept
more last night and rested better than
he has for some time, Bowels have been freely
moved. has had three thin evacuations to day
Pulse feeble and frequent, Skin of a natural
warmth. Expression dull and anxious. Cheeks
deeply flushed. Complains of some heavi
ness in his head, respiration accelerated.
Expectoration free and abundant and still
of a rusty colour. The crepitant rale, and
vocal resonance still distinct. Has some
bronchophany. Cough not so harassing, but
short, no appetite, tongue red and dry, free
from any gastric distress, Rx Tart Antimony gr ½

every 6th hour, Rp Pulv Ipecac Calomel aa grij
Potassa Nitras grs iij M. to be repeated every 6th hour
alternated with the Tarter Emetic.

Wednesday. This morning says he
feels no better, pulse soft and feble, and
his surface moderately warm and relaxed
Face presents the same condition of things.
tongue elongated, dry and red at its tip,
and edges, with a parched layer of brown fur
in the middle, No appetite, bowels open,
urine of a high color. The crepitant rale
is more dispersed. There is obvious dulness
on percussion over the affected lung. Expec
toration not so free and plentiful, it is
ropy and sticky. Has been very much
affected with hiccup. The powders of
Ipecac. Calomel &c continued. and the
antimony suspended, Blister on the Chest
At night Ext Hyoscyamus grs v- Morph grij
at bed time for the purpose of calming the
nervous system, and of controuling the hiccup,

Thursday. To day he seems more distress
ed and his prospects of recovery not atall flatter
ing, states he was restless and slept none last
night. His expression to day is worse. Features
a little pinched, and dark. Pulse 110 beats,
small and soft— Skin cool— Tongue reco-
ted appetite or nausea— Bowels open with
thin stools and tolerably copious— Very much
troubled with hiccup. Respiration about
the same— Crepitant rhonchus pervades
the whole extent of left lung— dullness
on percussion with vocal thrill and
ringing Cough— Expectoration not so abu
ndant
Friday— No phenomena in the progres of
the disease have transpired worthy of note
since last date— For the last few nights
has been somewhat wakefull and restless—
has had some headache— Expression of
countenance better, gums a little sore, he
seems to be slightly mercurialized— Tongue

clean but red. with a small ulcer on one side of it- There is some looseness of bowels. being caused by the Medicine- The powders of Calomel, Ipecac & Nitrate Potassa were discontinued on account of their purgative effect- Skin has been occasionally warm and dry, and at times moist. Pulse small soft and compressible- Cough diminished and loose Brandy stopped- He is now mearly taking Barly water & Infu Serpentaria wine glass three times a day

From the ninth day of the disease there appeared to be some improvement, But for mearly a month this desease assumed a Chronic form, and appeared to remain almost stationary. presenting the Symptoms of Chronic Pneumonia, Complicated with Chronic Bronchites- He now improved and in a short time enjoyed good health to all appearance

An

Inaugural Dissertation

on

Asiatic or Epidemic Cholera

Submitted to the examination of the Provost, Regents and Faculty of Physic of the University of Maryland for the Degree of Doctor of Medicine by

D. H. Robbins

of Maryland

Baltimore February 1850

Believing the subject on which the following pages are written to be of great importance, the writer has made his own improvement his paramount object. Aware of their numerous imperfections he would respectfully bespeak the indulgence which will be found necessary in their perusal.

Altho Cholera as an epidemic is believed to have been a great while known in the East it is only within the last quarter of a century that circumstances have made it necessary for the Medical profession generally to devote any considerable amount of attention to its nature, pathology and treatment. Its early history is involved in much doubt and obscurity. As it is the purpose of the writer to be as brief as the subject will allow, and a due consideration and respect for the long established custom of the University of Maryland in requiring a thesis from each one who presents himself as a candidate for its honors will justify: he proposes to omit what might be said of the early history of the disease, and commence his notice with its first appearance in America in 1832. The extensive prevalence of Cholera in Europe and Asia and its gradual western march, for a few years preceding that of its appearance in this

country filled the minds not only of the people at large but also of the medical profession here that the Continent of America would ere long become a part of the theatre of its fearful ravages, Indeed that it was destined to embrace the world in its tour of extensive and intimate commercial intercourse existing between the two hemispheres, it was apprehended would inevitably furnish a ready mode for its transmission across the Atlantic, These apprehensions were too well founded as was proven in the Summer of 1832 by the disease appearing first in the two cities of the Canadas, from whence notwithstanding the prompt establishment of quarantine and other sanitary laws in the seaport cities, as well as principal cities and towns lying interiorly, it travelled in almost any direction, extending west and South and appearing almost simultaneously on the borders of the northern lakes, and western rivers

and the seaport places as well as interior towns and villages, In fact no laws seemed to govern or restrain its march, Sometimes passing whole tracts of country it unexpectedly broke forth in greatly remote places from those of its last attack, and not unfrequently after having visited and almost depopulated a certain locality, and left the remaining few with the hope of exemption from any further encroachment it would reappear and recommence its work of destruction It pervaded thus the United States, uncontrolled and comparatively unmolested during the latter half of the year 1832, leaving the northern States with the earlier winters and to a great extent confining itself to the South during the cold months of more northern climates, It returned however with the succeeding Summer to the North but with diminished fatality and less malignancy than was exhibited in its previous character, Thus it lingered, occasion-

ally appearing, then receding and appearing again first at one point, then at another during the year 1833 and in the few instances in 1834 when its strength which had been gradually growing weaker and weaker seemed entirely exhausted, In the foregoing sketch of the history of Asiatic Cholera in our own country, much of detail has been omitted, It would require more space than is necessary, and much more than could be appropriately compised, to follow it in all its capricious movements, It might have been remarked that its visits in some places in 1833 were characterized by even greater fatality than in the year preceding, and at no time from the period of its commencement in Canada till the Autumn of 1834 when all traces of it disappeared was its ravages confined to the States of North America, On the contrary all parts of the continent as well as the West Indias experienced more or less its desolation, Thus its ravages in South

America were severest, some time after its most fatal ~~fatal~~ period farther north.

From the year 1834 when it wholly disappeared until that which has recently closed an undisturbed repose was enjoyed, from every thing resembling a frank and well marked case of this disease amongst us, or within the limits of the United States, so far as any authentic account has reached the knowledge of the writer. Still the densely populated countries of the East which has appeared to be so long its favorite abode, is said to have had no exemption from its existence. From those countries again in 1847 it was observed to commence another march of invasion into contiguous parts which during the intermission already alluded to had been more or less free from its destructive visitation. Gradually passing westwardly, with anxious eyes, it was observed to be stealthily encroaching ~~[illegible]~~ upon western Asia and the eastern empires of Europe, and ear-

ly in the year 1849 it had again reached Great Britain and France, and in the same year our own country became the second time the field of its operations. While we can look back upon its history during the last year with some degree of relief, compared with our recollections of its previous march, as being on the whole less destructive. But if it were possible to obtain absolutely correct data &c, it is a doubtful point whether in fact the number of deaths by it would not exceed that of 1832. Its violence was conspicuous along the courses of our western rivers, and northern lakes, and up to the present time it has not altogether disappeared from at least one of the cities on the Mississippi; And apprehensions of its revival with the approaching Summer are by no means absurd.

Much attention & learned observation has been bestowed on the inquiry as to what the specific cause may be. But but

little is absolutely known of its true source. Many opinions have been held and expressed on this doubtful and difficult subject. Indeed scarcely any theory, either on the one hand plausible or ~~xxxxxxxxxx~~, or on the other purely hypothetical and speculative but has had its advocates The supposed presence of infinitely small insects in the atmosphere was the basis of one set of opinions, Another, that the Soil of the earth was the abode of the poison from whence it issued in periodical emissions, And again a mysterious influence was spoken of, exerted by distant planets, or sweeping Comets and other celestial phenomena All these and numberless other superstitious and vague causes have been attributed, and in their time have been long since rejected on account of their absurdity, or dissipated by the application of known fact to their test, sometimes even before the exclamation of "Eureka" "Eureka" had ceased to be echoed, At the present time the mind of many of the profession seems

engaged with the idea of a peculiar electric condition of the atmosphere as being in some way connected with the disease, and doubtless further investigation & experiment await this subject, which may eventually lead to important discoveries, The mutual diminution of the quantity of this agent which has so often been found to exist, just previous to, and during an epidemic, may exert a greatly sedative and depressing influence on the nervous system, & thus give rise to disease, This however is yet theoretical, but to the mind of the writer at least not an absurd hypothesis, while he will look with interest to the results of future investigations on a subject so full of interest and importance. It has been shown by experiments abundant and authentic that there is not in the chemical composition of the atmosphere at the period of an epidemic any alteration from its natural and healthy standard, This however does not prove that a morbid poison may not

exist. On the contrary the same observations have been made during other epidemics which are known to depend on a specific poison. Still however this specific poison may be associated with, or dependent on the electric condition spoken of, or whether any connexion exists between them is far from being clearly shown.

The contagionism of Cholera has been the subject of great discussion; and facts which if they existed alone on either side of the question, have been abundantly adduced, to establish both sets of opinions The majority of the profession seems to favor the opinion of its noncontagion. But while this is the case it cannot be denied that instances have occurred which are altogether inexplicable according to this theory. Doct Graves of Dublin and Dr Wood both remark a fact, which the writer (at least) has not seen controverted, (these two eminent authors it will be remembered hold opposite opinions on this subject) that is entitled to great weight in determining this point and which furnishes a presumpo-

fair evidence ~~that~~ upon which might be based a protracted argument, They say "It is a remarkable circumstance that Cholera has in no recorded instance appeared in any place, sooner than the ordinary modes of communication might have brought it from infected stations"

If on the other side a great array of instances are adduced where persons who have been exposed for days and weeks to its contagion, have escaped its influence, we humbly conceive that such evidence is altogether negative, and if one well established instance is found where with or without any personal predisposition, the disease has been contracted by an exposure to contact it is sufficient to disprove all ~~negative~~ negative evidence to the contrary, That such instances have occurred and have been recorded the writer is inclined to believe, with all respect, and great deference to the authority on the other side, He humbly thinks that Dr Wood than whom no one entertains a more profound re-

spect, in selecting what he calls "one of the strongest cases that has occurred to prove the contagiousness of Cholera" for the purpose of explaining it on other principles - has not adduced as good and instances, as the private experience of many whose authority is far above a doubt would furnish. Doubtless a predisposing condition of the system facilitates the communication of the disease, and as some believe is perhaps essential to it. Of such condition of the system is that brought on by the use of unwholesome food, diet, or food insufficient in quantity or quality to furnish a supply of healthy aliment want of cleanliness of person, previous disease - great mental depression - such as from excessive grief or fear - the use of ardent spirits or other lascivious indulgences, which tend to a depression of nervous or vital action, Indeed all influences which abnormally depress the nervous system, or derange the digestive functions may during an epidemic

frequent & excessive purging soon follows
The discharges which are more or less at first
of dark color, sometimes bilious assume a
lighter hue, as well as a more thin & fluid
consistence until they present a white and
watery appearance When suffered to remain
a while undisturbed these matters separate into
a colorless liquid, and a white flocula from which
they have been called "rice water" discharges
These discharges become not only alarmingly fre-
quent but at each effort at vomiting, or at stool
which are frequently simultaneous, are sometimes
almost incredible in amount, The spasms increase
so that the patient is only able to express their se-
verity by loud shrieks, while their violence is also
exhibited by various distortions of the parts thus af-
fected. The pulse frequent & feeble: respiration
labored; and the countenance so altered & sunken
as sometimes to forbid recognition by the patients own friends
The healthy secretions are all diminished greatly, or
perhaps entirely suspended, A burning pain is

felt in the epigastrium, accompanied with extreme thirst, and dryness of mouth and fauces. Vomiting at this stage the sensation as of that produced by the presence of some hard unyielding body in the stomach is apt to give rise to the most unpresidented torture. This latter symptom the writer will never forget as the most prominent and troublesome (to himself) of all others in his own case in 1834 at a time when he was so young as to forget almost all other painful accompaniments. The patient now sinks into the stage of Collapse. The pulse is imperceptible, the diarrhea perhaps ceases, and a colliquative sweat breaks forth, & the surface more or less general, but especially of the face and extremities exhibits a dark blue, or leaden appearance, and becomes at the same time cold. These phenomena are explained by the nature of the evacuations which consist of the Serum of the blood with its contained Salts together with Some fibrin and incoagulated albumen. These materials being withdrawn the blood is no long-

(?)

er capable of becoming oxygenized and consequent-
ly incapable of sustaining a healthy temper-
ature, or of stimulating the heart to con-
traction The fluid portions of the circula-
tion have been consumed by the morbid
thirst and drain set up in the alimentary
canal by the altered condition of its mucus
membrane. A viscid, dark & heavy fluid is
left behind consisting principally of red cor-
puscles, which even in an otherwise healthy
condition of the system (such a supposition if it
were possible) would be incapable of flowing
with the natural vigor of a healthy circu-
lation, now adhere to the vessels thro which
it moves; the capillaries become engorged &
circulation finally impeded; and cyanosis is
exhibited more or less general over the en-
tire surface, In this condition the suffer-
er loses consciousness generally of every thing
around him & happily of his own situation, the
death finishes the work so frightfully commenced,

Altho in a majority of cases the Symptoms succeed each other in rapid Succession, & not unfrequently terminating fatally in a few hours from the earliest observable Signs of the disease: yet in many Cases they are less rapid in their march, and some days may elapse ere the System finally yields to it. I have attempted to describe a case of a somewhat aggravated, though by no means infrequent character. In doing so I have not attempted to enumerate, and much less to detail all the phenomena that this disease has presented, Knowing that an attempt of this kind, even if it were in my power, would occupy more Space than could in any view be appropriate or warrantable. Trusting to the indulgence of those to whom this is intended to be Submitted, both on account of the length I have already gone & the numerous imperfection it may contain. I will close by giving in as short a Space as possible the

treatment which seems to me to have the best authority for its adoption and success in its use.

No specific has ever yet been discovered for this disease. Various, and almost numberless modes have been tried, varying according to notions of the practitioner, the symptoms presented, the stage in which the patient has been found, and the indications that seemed most demanded. At one time Calomel was used without stint, and often without measure. This was the great means universally applied in the East, where the disease so long existed & was recommend by the physicians of those countries. While this practice is adhered to by some, the experience of the profession generally, has proven it to be unsatisfactory, and the supposed indication which was intended to be met by the inordinate use of that agent erroneous. While, there is found in all cases a suspension of the functions of the liver, there

is no evidence that this derangement has any thing to do in producing the disease On the contrary, the fact, that in many cases, (perhaps a majority) the liver does secrete bile after the disease has set in: and the subsequent impairment of this function, gives evidence that such derangement is to attributable to the complaint and not the complaint to it: and therefore our treatment should have for its object something more than a mere correction of the disordered functions of the liver. Casting this view Dr Graves has gone so far as to reject Calomel altogether. he says "I have found the administration of acetate of Lead and Opium in small frequent doses attended with the best results in all cases where medicine promised any chance of relief" How far this may be sufficient it would ill become me to say. As a relief to portal congestion, and as a general secretory stimulant Calomel appears to be indicated, and its use in this country has proven eminently beneficial &

has seldom been entirely dispensed with
In the absence of any acknowledged Specific
treatment a resort to general principles, is
not only the best course that can be pursued
but the only one which can be justly followed.
The first enquiry then that suggests itself is
what are the indications? They are to con-
ceive First, to arrest as quickly as possible the
purging and vomiting, in other words to ar-
rest the morbid secretions of the Stomach and
alimentary canal and to relieve the irritation
of its mucus membrane.
Secondly to excite the secretory organs, to a
healthy action, especially the liver
Thirdly, to restore to the circulation its fluid
portions that have been drained away, together
with the Salts which have also been lost.
Fourthly to equalize the circulation by stim-
ulating applications to the surface,
Lastly, to relieve pain & Spasms, and support
when necessary the "vis vitæ"

The most serious consequences ~~can~~ alone may be expected from a continuance of the alvine discharges, and to this cause may be traced all the phenomena spoken of in describing the stage of collapse. Our first efforts ought therefore to be directed towards arresting them. Fortunately our best means for this purpose may be so combined as to have a direct influence on other symptoms, and must to a certain extent other indications also. The administration of Calomel and Opium in small and frequently repeated doses & combined with Sugar of Lead as the urgency of the case may require, is above all others the treatment indicated & that upon which the profession are fast agreeing as the safest and the best. It will be seen by the brief reports of from the Metropolitan Hospitals published in the London Lancet of Nov 1849, that various modes were systematically tried, but an examination of them will show that the best

results that were known to follow any mode of treatment then tried, were derived from this. — Large doses of Opium would probably be injurious (even if it could be retained) by its action on the brain and its tendency to favor congestion of that organ, In small frequent doses it is best born by the Stomach, and its influence in checking diarrhea and relieving pain and irritability is secured without serious danger from cerebral congestion — Acet: of Lead exerts a directly sedative influence on the gastro intestinal mucous membrane, while at the same time it acts as a prompt and powerful ~~stimulant~~ astringent, and may be administered freely without producing any unpleasant symptoms, (Dr Gerhard has mentioned a case in which he used it in gr ii doses every hour for 24 successive hours without any bad effects) Calomel given in small doses in the combination already named, while it assists ~~in~~ in calming irritation, also exerts

an important action in encouraging and stimulating the liver to a renewed exercise of its healthy functions. A judicious combination thereof of these three agents seems to the writer, a most happy means of commencing our treatment of the disease. Their proper proportions must be left of course to the physician to be determined in each particular case. The patient is allowed to drink freely of cold water. Pieces of ice are also which are generally not only grateful to the patient, but beneficial in allaying the morbid thirst, and burning heat of the stomach. Mustard plasters are applied to the epigastrium, and Chloroform is often found most effective in relieving the severe spasms that may exist. While these means are being used it has been recommended to administer also, some of the salts of Soda and of Potash as of the Carbonate and Chloride of the former and the Chlorate of the latter, or of Citric Acid &

& Bi Carb of potash, known as the effervescing mixture, which serves to allay irritation & to furnish those Salts which are a part of the natural constituents of blood, and said by some, as Dr Stevens and others of great respectability, to be essential to the proper oxygenation of that fluid. The aromatic Spirit of Ammonia is said by Dr Wood to be an admirable agent in cases requiring a stimulant answering also the purpose of allaying gastric irritation. The diarrhea & vomiting being arrested the next desideratum is to excite if possible an action to the Skin; but in using Stimulants it is necessary to exercise caution, that the consecutive fever which is apt to supervene is not encouraged & thus our patient lost after one (now) having the hope of life revived, Dr Wood objects to the practice which is so strongly recommend by the experience of many other practicioners viz that of the warm or vapor bath, and speaks

more favorably of friction with the hand alone or in connexion with rubefacients, Dr Mitchell says on the contrary in speaking of the use of the hot bath "This plan has had a most marvellous effect when used early enough, and indeed in some cases even when used in a perfectly collapsed state of the patient" This discrimination seems necessary, and nought but personal experience can determine this difference, which the practitioner must possess, and apply that which after a patient examination of the two plans, is to him best suited, Friction with hot turpentine and other stimulating & rubefacient substances has much authority for its usefulness, But the, scope of stimulating application depend so much on the particular case under treatment, that it would be impossible to name them all, without protracting my essay which is already much beyond the limits I had at first designed to occupy, to

too great a length. If prostration is great diffusable stimulants must be used, & those person who have been accustomed to artificial stimulants, especially require the use of their agents - and Reaction once commenced these remedies are generally inadmissable, And great attention & judicious care becomes requisite in order that this reaction be neither on the one hand too rapidly encouraged, or on the other retarded, For the one would almost surely lead to some dangerous local inflamation ~~which~~ or a fatal consegutive fever, while the other ought to be not less feared, as tending to a fatal relapse - These agents & many more of a similar character which will readily suggest themselves to an intelligent practitioner must be adaptent in the extent of their application to the severity & special Symptoms of the disease, If treatment can be commenced in the incipient state, or that called Abortive, simpler remedies are

generally sufficient to arrest the disease
Opium in a dose of gr j with or without calo-
mel as may be indicated by the color of the
stools, especially if combined with a little Acet.
Lead will in most cases answer this pur-
pose if immediately resorted to. But on the
contrary, if the State of Collapse has supe-
vened before medical aid has been obtained
recourse, ~~to~~ immediately to Stimulants is
our only alternative, and ~~even~~ even in the
these hands
of the best practitioners, and seldom efficient
in restoring the patient. Altho the dis-
ease is in a great degree, beyond the reach
of medical art, when once fully formed, ex-
perience has taught that much may be
expected from judicious management in
its earliest stages or symptoms; And this
must be accomplished by a careful observance
of proper prophylactic measures. In seasons
of an epidemic great attention should be
paid to a healthy diet. All irregularities &

excesses should be avoided; and fatigues of body or mind carefully guarded against; cleanliness of person & places as well as free ventilations by day of our habitations should be scrupulously attended to; and composure of mind, than which nothing is better calculated to bestow than a confident reliance on the wisdom and goodness of an overruling Providence, These & other like means intelligently exercised will do much in warding off this fearful malady, to which we think may be justly attributed our own escape as Citizens of Baltimore in a great measure during the Summer last past. These then are our great means of defence, for it should be born in mind that altho we have furnished to us by the Materia Medica powerful agents which are prompt and decided in their character and action in ordinary complaints of a like kind, yet of the very best of these it may be said in this disease their efficiency

is ~~the generally~~ sometimes uncertain, and in very violent cases wholly wanting. Were it possible that in all cases medical aid could be procured, with the appearance of the first blush of the disease, there is good reason to believe that its fatality would be very materially diminished. But so long as its prevalence & malignancy is almost "pari passu" with those conditions which accompany ignorance, poverty and degradation, we cannot expect to be able to strike so directly at its root. Hence it has been admitted by most authors on the subject that in spite of all treatment about one half the cases terminate fatally. And hence general experience has too well accorded with London hospital report which says "As the experience of this hospital, and others, it seems but too certain that no treatment yet adopted is of any avail in arresting death, or the progress of disease; in the really severe cases a few hours

concludes the whole affair." On the other hand Dr Ayre of Hull, whose treatment with Calomel alone, (or associated with the most minute quantity of Opium,) has been attended with a degree of success, rarely attained has declared "that there is no period and in the stage of Collapse, short of a visibly moribund state, that should make us despair of restoring the patient". The duty of the physician in all cases that may come under his observation, is in view of all things plain, viz Resort to those means in which he himself places most reliance as best calculated to correct existing disturbances, and restore the system to a healthy condition.

An
Inaugural Dissertation
On
Pneumonia
Submitted To the
Examination of the
Provost Regents
And
Faculty of Physic
of the
University of Maryland
For the
Degree of
Dr in Medicine

By
Robt Digges
of Charles County.
Maryland.
February 15th A.D.
1850.

Acute Pneumonia

From the voluminous catalogue of diseases presented for consideration, the Student of Medicine must almost necessarily experience some degree of Embarrassment and difficultly in the selection of a subject for his inaugural dissertation.

Whilst we perceive the numerous maladies to which the human System is subject; we cannot fail to be struck with the importance of a correct Knowledge of those affecting the Thoracic viscera, whose functions are so nearly allied to the continuance of life

It neither being my desire nor duty to write concerning more than one disease. I do not design speaking of all the diseases that are seated in the chest; but will confine myself to the consideration of that common Malady: Inflammation of the Lungs-

Pneumonia is divided into three distinct stages, viz Engorgement: Red Hepatization

and gray Hepatization. The first stage that of Engorgement, is characterised by a dark red colour, crepitates less than the healthy lung. If pressed upon the air cells will be found to contain a considerable quantity of extravasated fluid. The specific gravity is increased, however the lung does not sink in water, it becomes softer, easily torn, approaching the consistence of the spleen, hence this stage has also been denominated Splenization. The bronchial mucous membrane is found red, evincing Inflammation. The lung also pits on pressure.

The second stage - named by Laennec red hepatization, is recognised by the following appearances. The parenchyma of the lung is deep red, or greyish red colour. Crepitates no longer, cut surface uniformly red; sometimes variegated. The spongy character is lost, becomes solid, resembling when cut into the liver, hence it has been called

Hepatization. When freshly cut some red fluid still flows on pressure, but less than in the the former stage. There will sometimes be found thickened yellowish matter indicating incipient suppuration. The lung is swollen, and does not collapse when the thorax is laid open. An account of this swelling the marks of the ribs are sometimes found upon the diseased lung. In this stage the lung is very friable and easily crushed. Hence the name Ramollissement rouge. The swelling is produced by congestion & effusion of blood or bloody serum, destroying the permeability of the lung.

In the third stage, that of Gray Hepatization, or gray softening; the lung is found solid, dense, and impervious to air, as in the preceding stage. There is a marked alteration in colour, it presents a grayish or yellowish gray, straw or drab colour. The granulations seen in the second stage, are in this

whitish or gray, and the texture still more friable and rotten. The lung is full of purulent matter which may be made to exude on pressure. If crushed it is reduced to to a yellowish gray pulp very similar to the fluid, but more consistent. In this the suppurative stage there seems to be same disposition to the formation of Abscess, but less than was formerly supposed. Indeed it is a very rare occurrence to find a true pneumonic abscess. Chomel, states that, during an experience of twenty years, he had only two, and Laennec only discovered five in several hundred cases.

Tubercular vomica may sometimes be taken for abscess, this we should be aware of & will generally find no difficult matter to decide provided we acquaint ourselves with the patients previous history.

Another condition of the lung found after death is gangrene. This state may be regar-

ed before death by the intolerable fetid and gangrenous breath, this happily is of rare occurence, when found it presents a dark dirty oline colour, somewhat softer than the engorged lung.

Pneumonia is generally confined to one lung, it may however attack both simultaneously, constituting double Pneumonia.

It is also more frequently detected on the right than left side, why the inflammation should seem thus to have a preference for this side, I cannot judge is not in the power of man to divine. Sometime found partial, implicating only one lobe, thence called Lobar Pneumonia. Sometimes also confined to one lobule & accordingly denominated Lobular Pneumonia. There is always present some Bronchitis. The lower lobes oftener found to be the seat of inflammation than the upper. Such I conceive to be the usual pathological

appearances of a case of Acute pneumo-
-nia. In order to foretell that these changes
are taking place in the lung we call
to our aid certain symptoms, which
we shall next proceed to consider.
First of these & the most important are
the auscultatory signs. By the aid of this
mode of investigating disease, particularly
those of the chest, we are enabled to say
with certainty, what change has taken
place in the viscera and, thereby no longer
doubt as to the proper treatment to
pursue. In the first stage on applying
our ear alone, or the Stethoscope to
the thorax, we perceive a crackling noise,
This is the crepitant Ronchus or Dry rattle.
This sound is similar to that produced
by sprinkling salt on red hot coals.
Andral compares it to the noise produced
by rumpling a piece of parchment
Williams illustrates it by rubbing a lock of

of hair near the ear. This sound when heard tells us immediately what is transpiring in the chest & gives positive information as regards the treatment. It is sometimes heard in a limited spot, obscures the vesicular breathing, but does not destroy it entirely, it is more & more developed as the inflammation advances, but as long as the vesicular murmer is audible we may feel assured there is no immediate danger of death. We judge the progress of the Inflammation by the development of this crepitant ronchus. It however does not remain long, it being soon replaced by another denoting resolution, or warning us of the approach of Hepatization. This sound appears to be produced by the passage of air through liquid, numerous little air bubbles form & explode producing the sound we have been speaking of as characteristic of the first stage of Pneumonia

C J B Williams gives a diffrent explanation for the cause of this sound but this is a matter of secondary importance provided we are aware it is produced in the minute ramifications of the Bronchi & know what it signifies. The inflammation increasing and passing to the second stage, the lung becomes more dense in texture, there is obliteration of the air cell and all sound of vesicular breathing. In the natural condition from the spongy texture the lung is a bad conductor of sound. Having now become dense, is a better conductor, transmits the sound passing through the Bronchi and affords what we might naturally expect, Bronchial respiration, this sound resembles that produced by blowing through a quill so loud sometimes as to amount to a whistle. We are sometimes unable to detect any sound after the Expiration, but generally

we will find the sound I have been speaking of as characteristic of the second stage. There is another auscultatory phenomenon nearly as characteristic of this stage as the bronchial respiration. The voice appears as if one speaking through small tubes. it is not the same sound of the ordinary voice, but more indistinct & muttering Dr Williams says of this sign, the voice is not heard in distinct words, but in notes of various continuance, not always synchronous with the words uttered by the mouth, and the intervals are often alternated with what may be called whisps of bronchial respiration.

The sound will also be modified according to the number of tubes in which it is heard greatest when detected in the vicinity of the roots of the lungs. This sound is Bronchophony. The lung is sometimes so much swollen as to preclude the possibility of further expan-

sion, when so we cannot perceive any Bronchial breathing, but Bronchophony may still be heard. We are unable to distinguish the commencement of the third stage by Auscultation, the supervention however of a Mucous Ronchus upon the bronchial respiration might lead to the belief, that the third stage has commenced - Should there be an abscess its presence will be indicated by the gurgling or cavernous ronchus, and when the disorganised portion has been expectorated the cavity left behind will be injured by a sound as if the patient were speaking immediately within your ear - this constitutes pectoriloquy. Cavernous respiration is also sometimes discovered in this stage of the disease. Gangrene is also accompanied by similar sounds but the most important characteristic is the gangrenous odour emitted whilst breathing

In this advanced period auscultation is is of much less afsistance than in the more recent attack, in an incipient Pneumonia the experienced auscultator will require no other symptom than such as is afforded by the ear. he is enabled by this method to trace with a correct diagnosis upto the second stage, after this the progress of the disease is more obscure, and he also requires the intermition of the general symptoms, which will now be of important kind. There is also another condition in which auscultation give but little afsistance, as in lobular pneumonia. This variety of the disease may be deep seated thereby causing the inability of the auscultator to detect it.

Percufsion alone would be of but little afsistance, but as an auxiliary to

auscultation is often of very great value.

In the first stage we have the sound elicited by percussing the chest but little modified, there is however some degree of dullness, which may be best discovered by comparing it with the sound on the corresponding portion of the opposite side. In the second stage when we have bronchial respiration the percussed lung gives out a dull sound, this dullness will be increased if the hepatized lung comes up to the parietes of the chest, this deadened sound continues until resolution takes place

It is also modified by the seat of the inflammation, if it be deep seated the evidence afforded by percussion is still more negative, about the posterior and lateral margins of the lung it always yields us doubtful information

General Symptoms are pain, cough,

dyspnoea; a peculiar expectoration and fever.
These symptoms all have peculiarities rendering it necessary to give each a separate consideration. The disease is ushered in with a chill, followed by febrile reaction, cough dyspnoea and pain on a level or below & external to one of the mammæ. Sometimes the fever and local symptoms occur without the chill, the local symptoms being manifest before the general.
The pain is not ✠ sharp & lancinating like that accompanying pleurisy, it is rather a dull heavy pain, sometimes hammering or distracting, giving rise to that sensation called a stitch in the side. It depends on a pleuritic complication, and may exist in any part of the thoracic parietes, generally most distressing in the beginning, & declines as the disease advances. It is increased by pressure made upon the ribs and,

intercostal spaces, sudden changes of position, cough and a free inspiration
The patient is unable to lie on the affected side from the pain produced by this position, there is not always sharp pain but; we generally find some uneasiness, sense of heat weight or soreness.
The decubitus of a patient suffering with Pneumonia, is dorsal, he cannot rest upon the affected side on account of the pain produced by that position, if he lie upon the sound side his breathing is Embarrassed by the obstacle this position offers to the full expansion of that side of the chest in consequence of having to overcome the superincumbent weight necessarily imposed upon it in this position. The Dyspnœa is a very valuable and often distressing symptom, sometimes patients do not complain of any difficulty in breathing, but if noticed carefully you will perceive they

pause in the middle of a sentence in order to breathe, others again become indifferent to surrounding objects and think of nothing but their distressing difficulty of breathing. Supper dreadfully, scarcely able to speak or lie down, this degree of Dyspnoea is ominous of an unfavourable termination. The Dyspnoea may be looked upon as generally as an index of the degree of inflammation but not always, it is greater when the superior lobes are inflamed than the inferior. Ear must also be carefull not to be led astray by its absence.

The cough is not a very important symptom there is generally some cough but it is one of the least of the symptoms we have been considering, it does not occur in paroxysms, is dry in the begening, but is soon accompanied by the expectoration peculiar to Pneumonia. At the commencement there is sometimes absence of expectoration,

when present it is such as is seen in simple Catarrhal affections, composed of moderately tenacious mucus, as the inflammation advances, the Sputa become pathognomonic of the existing disease, forming a mass of reddish yellow or rust colour, very tenacious adhering with such pertinacity as to render it incapable of being passed from one vessel to another, so viscid sometimes that even inverting the vessel and shaking will not detach it. When such sputa as that just reported to are seen, it is a strong evidence of the presence of the second stage. Should the sputa be only moderately tenacious, we may infer that the Pneumonia has not passed the stage of Engorgement.

"When the sputa become so viscid as no longer to be capable of being passed from one vessel to another, we generally have dullness on percussion and bronchial respiration. At this period we may have

absense of Expectoration, either on account of its great viscidity, or from inability of the patient to exercise it. Sometimes in the advanced stages of the disease the sputa are of the consistence of water, of the colour of liquorice water or prune juice. Should gangrene take place the sputa are of a greenish or dirty grey colour, exhaling a fetid smell The colour of pneumonic sputa is referable to the intimate union of blood with the mucous from the Bronchial mucous membrane. The Expectoration so important as a diagnostic sign, sometimes varies from the appearances just detailed. We should bear this in mind and be prepared for such a result. Another and a very distressing symptom is delirium. The lungs whose office is to depurate the blood has now from continued disease action failed to perform its proper function, and we have as an unavoidable result impure

blood circulating in brain. Warnings by the delirium thus pronounced that the time of dissolution is fast approaching.

I have now considered considered all the symptoms that present themselves in a well marked case of Pneumonia, it is our duty however to remember that they may not be met with in the order here laid down, some may be absent and, sometimes either from the presence of another disease or some other cause; others present themselves, which it will be our duty to observe and study.

Causes. The most frequent cause is sudden changes of temperature exposure to cold whilst warm and perspiring, wet feet; may be produced by inhaling irritating gases, presence of foreign substances in lungs, by wounds penetrating such as stabs which penetrate the parenchyma of the lung. Retrocession

of cutaneous diseases. Rheumatism & Gout
Such are some of the causes which may
produce inflammation of the lungs. May
cases happen without any discover=
=able cause. The prognosis is always
grave. In the first stage we have no rea=
=son to fear any immediate danger, and
good bleeding here may arrest the disease,
still we cannot say it will not reach the
second stage. When we have evidence
of Hepatization our prognosis must
not be inevitable death, resolution
may yet take place, but when we
have traced the disease to the third
stage we may rightly fear and prog=
=nosticate an unfavourable termination
Our conclusion will also be assisted
by the evidence afforded by the general
symptoms, we look to the sputa and
the Dyspnœa for information. When the
difficulty of breathing is great, the cough dry

and, attended with rusty or dark liquid sputa, pain diffused throughout the thorax; the countenance becomes livid the pulse soft and irregular, with the superaction of delirium the danger is eminent. The appearance of Diarhea is a very unfavourable symptom. We may predict a favourable termination when we find the symptoms retrograding as we saw they would in a former part of this paper, they take a course the reverse to that we have assigned them in this malady.

"Treatment. The disease is essentially inflamatory and, the treatment must be strictly antiphlogistic". We have three great agents in subduing this disease, viz; Blood letting; Tarter Emetic & mercury. Blood letting is our chief dependence, the patient should be bled copiously in the beginning, when resorted to in the first

stage venesection is often heroic. cutting the disease short, the patient should be made to sit up and blood taken in a full stream from a large orifice and permitted to flow until a decided impression is made upon the system. When inflamed, the lung receives more blood than in its normal condition, rendering it necessary to moderate the flow of blood to these organs The more blood the lung receives the greater will be the pain and dyspnoea and more impure blood will be circulated through the system, in consequence of the inability of the lungs to perform the function allotted them. These considerations at once point out the efficacy of blood letting. The smaller the quantity of blood flowing to these organs the less necessity there will be for exerting them. We therefore bleed in this disease with a view to lessen the quantity of the

circulating fluid, as well as to obtain the beneficial effects of blood letting over the ~~xxxxxx~~ inflammation. We meet with cases in which it is necessary to repeat the bleeding even to the third time.

The abstraction of blood is generally followed by mitigation of pain and dyspnoea. When we have evidence of hepatization, blood letting will not be so strongly indicated, but will yet do good by relieving the heart of its unusual quantity of blood, and reducing the force of the heart and arteries. It is necessary however to bleed with caution in the advanced stage of this disease, unless dangerous and fatal prostration should ensue. Sometimes when the pulse is small frequent & oppressed, other things postponing; we make a tentative bleeding watching the effects upon the pulse, Should the pulse improve continue the bleeding

but if the pulse becomes still weaker the blood must be immediately stopped. The blood is not buffy at first; from excess of carbonic acid, the second or third bleeding will give the buffy coat.

Local bleeding often affords great relief, after general bleeding, or when the system will not bear venesection. Cups or leeches should be applied, about the seat of pain. Tartar Emetic should be used in conjunction with bleeding and even when the abstraction of blood is no longer admissible. This agent possesses great influence over Pneumonic inflammation, it is not given with a view of producing nausea or emesis, if these effects follow its administration, it should be combined with opium or syrup of poppies, best given in small doses at first; until the stomach becomes able to bear it.

Sometimes surprising doses of this med-
=icine will be borne without nausea or
vomiting. one third of a grain sufficient
to commence with and, increase accor-
=ding to its effects. The calomel treatment
is a good one but inferior to Antimony
in the first stage, when hepatization
has taken place calomel is more to be
depended upon than the Tartar Emetic
It must be given so as to produce its
specific effect speedily, should there be
pain an opiate should be combined with
it, this also prevents the calomel from
running off by the bowels. Dose small
and frequently repeated, one or two
grains with one grain of Opium a very
convenient and efficacious mode of
administering it. Sometimes will be
combine with the calomel tartar Emetic
or Ipecacuanha. Cooling diaphoretics
are sometimes beneficial, particularly

when the febrile symptoms run high. Nitras potassæ, Pulvis antimonialis, and Muriate of Ammonia are among the the best remedies of this kind. Purgatives are of less efficacy than in most other inflammatory diseases. It is never necessary to resort to hard purging but, always ~~necessary~~ important to evacuate the bowels in the beginning and to keep them soluble through out the attack, by some of the neutral purgative salts or Castor oil.

When the system becomes prostrated the antiphlogistic treatment must be substituted by a stimulant one, viine whey. Carb Ammonia. Infusion of serpentaria, are well suited for this advanced stage of the disease. When ataxic symptoms present themselves Carbonate of Ammonia is strongly indicated. Counter irritation form a valuable auxiliary in the treatment of Pneumonia, for this purpose Stokes lini-

=ement and blisters answer well. the vesica=
tory should be large. Blisters after sufficient
depletion are often of signal advantage, it
has been recommended by some to apply
them to distant parts, the thighs, but I am
inclined to believe, all we can reasonable
expect from them may be obtained by apply=
=ing them immediately to the affected part. Diuret=
=ics & Emetics seems to be of but little effi=
=cacy in Pneumonia. The convalescence when
fairly established is rapid, & the patient soon
recovers his strength, Convalescents should
however observe some restriction for a few days
in regard to their diet and Hygiene
Such I conceive to be the usual phenom=
=ena accompanying this disease. The descrip=
=tion and treatment might be detailed
much more fully, but deeming it wiser
to confine myself to obvious and establish=
=ed facts, I have not attempted to go into an
elaborate description of everything connect

=ted with the subject. In my arrangement
of the different stages & characteristic
symptoms, I have chosen that which seem to
be generally adopted by Medical Authors
of emminence. Should the learned
Faculty think this an imperfect sketch,
I hope they will remember the inexpe=
=rience of the writer and, that to become
a medical writer, it is necessary to observe
and study much more than it has
been in the power of their humble ser=
=vant=

An

Inaugural Dissertation

on

Fractures

Submitted to the examination of the

Provost, Regents,

and

Faculty of Physic of

the University of Maryland

for the

Degree of Doctor of Medicine

by

Adam Clarke Harris

of

Granville County N. Carolina

1850

To

Dr. Nathan R. Smith

Professor of Surgery, Clinical

Lectures &c. &c.; The author friends

and the friend of humanity.

This Thesis

is respectfully dedicated.

In the prosecution of this subject it will be nec-
-essary for me to take a cursory view of the human
skeleton. The bones of which it is composed, are
those of the head, trunk, superior and inferior
extremities. The bones of the head may be div
-ided into cranial, and facial; including
the occipital, parietal, frontal, Temporal, sphe
-noid, ethmoid, malar, turbinated, nasal,
superior and inferior maxillary, lachrymal
palate and the vomer. The bones of the trunk
consist of the vertebral column - composed of
cervical, dorsal and lumbar vertebrae - the
sacrum and coccyx - clavicle, scapulæ, ster
-num, ribs and innominata, of one and the other
side; the latter forming in front by their union
the arch of the pubis.

The bones composing the upper and lower extrem
-ities, are the longest of the frame. Those of the
superior being shorter than those of the infer
-ior extremity. In the first class we have the humer
-us, radius, ulna, carpal, metacarpal and

the phalanges of the fingers of both sides.
In the second class, or the lower extremity I include the femur, patella, Tibia, fibula, Tarsal and metatarsal bones of the foot, and the phalanges of the toes of one side, and of the other.
To these add the sesamoid bones (the patella is of this class properly) which are found differing in number in different skeletons, and the bones of the skeleton are all enumerated.
The liability to fracture is probably in the following order, their length increasing the liability over others, as well as the offices they have to perform; those of the thigh, arm, forearm and leg. Notwithstanding all are subject to fracture by being crushed.
This arrangement or classification, may be altogether arbitrary, as it is not the result of observations. I should have classed the clavicle among the bones which are peculiarly subject to fractures, probably. The bones of the cranium, uniting as they do by sutures, form a strong arch, and

consequently do not yield to any force which may be applied to them, so readily, as some other bones of the skeleton. In this will appear the wisdom of Him who made us, inasmuch as within its vault - if I may so speak - is concealed the great centre of the nervous system, connected with the spinal cord, protected from injury by violence, by its peculiar situation within the ver-tebral column. Never-theless fractures of the cran-ial bones sometimes occur. Less frequently, prob-ably, is the surgeon called upon to treat fractur-es of the bones of the face. The carpal and tar-sal bones, owing to their diminutiveness, are seldom the seat of injury; which, when occurring is frequently if not always the result of crush-ing violence.

In considering fractures of the bones, I shall fre-quently have to refer to the attachments of mus-cles in the immediate vicinity of the several fractures. I deem it proper in this paper, to con-sider the subject of fracture in accordance with

The plan persued by our most excellent professor of Surgery, in his course of lectures this present sepion, drawing upon his lectures for almost all I may say upon the subject, having had no experience myself. Now will I fail to acknowledge my indebtedness to books on surgery- among which will mention the works of Dewitt and Gibson- which I have thoroughly consulted. And although I shall, under the preceptorage of our professor of Surgery, differ from the latter in more than one instance probably, yet I shall consider myself under many obligations to his book for the information I have received during its perusal and reperusal.

Fractures are longitudinal, obliqueand transverse;- simple, compound and comminuted, and frequently complicated.

When the bone only is divided, we call it a simple fracture. A compound fracture is a division of the bone, with a wounds of the soft parts in its immediate vicinity, one of the fragments

(it may be in some cases, both) protruding.
Compound fractures are generally oblique.
By the term comminuted fracture we understand one in which the bone is broken in several pieces, for indeed we cannot have a fracture of this character unless there are three or more fragments. In a complicated fracture there is in addition to the injury done to the bone a lesion of some considerable blood vessel, nervous trunk &c.
As a general rule in the treatment of fractures, we have to reduce the fragments when displaced, maintaining them when reduced, preventing the symptoms which may be likely to arise and combatting them when they occur. The first of these, the reduction must be operated by extension, counter extension and coaptation.
By extension, I mean an operation by which we draw (strongly if necessary) either with the hands or by straps, and this is the opposite of counter extension.

By coaptation I mean the act of adapting the two extremities of a fractured bone.
The second of these means of general treatment is accomplished by position, rest and an appropriate apparatus.
To be successful in the last two of the above mentioned indications in the general treatment of fracture, one shall have to draw on our knowledge of and skill in therapeutics appropriate agents always producing the desired effect, if there is no impropriety in the conduct of the patient.
From what I have already said it may be stated that although all the bones are subject to fracture, the long or cylindrical suffer more frequently than the short ones, for they are under the influence, commonly, of large and powerful muscles, and have to serve a greater number of purposes. Hence in my classification at the outset, I placed the femur at the first of the list, the humerus

next, and the bones of the forearm and leg fol-
lowing in order.
When a bone is broken by a direct blow the
fracture generally occurs at the point to
which the force is applied - but if fracture
occur in consequence of force applied at
its extremities, it is generally at its weakest
point, and in the middle, being an oblique
fracture.
The muscles play a very important part in
accomplishing fractures, and frequently suc-
-ceed without any coaperating power. Even the
patella has thus been fractured, by an effort
on the part of an individual, who while
about to fall backwards, tries to catch him-
-self, and throwing his body forward, brings
into action the rectus and other muscles
concerned, producing the fracture interme-
-diately. Sometimes bones from old age
or disease become peculiarly liable to frac-
-ture - and indeed this peculiarity may be

observed in young persons - who in all other respects enjoy health and are not dissim-ilar to other people.

I should have remarked in the opening of this paper that the bones are compo-sed of animal substance and earthy matters; when the first of these predomin-ate in an undue degree, the bone is elastic, and "vice versa" In young children the anim-al substance predominates, and hence frac-tures in their bones are usually only partial, -(and this likewise accounts for rachitis in children) - and are of the most difficult ch-aracter. In old persons, on the other hand earthy matter predominates, hence the partic-ular susceptibility of fracture in their bones. Experiments of an interesting character may be made by subjecting a bone to the action of some of the acids, which will decompose the earthy substance of the bone and leave the animal matter in preponderance.

Take anathu bone and subject it to the ac-
-tion ofthe fire, which will destroy the anim-
-al portion and leave the earthy substance
in excess. On the one hand you will have
an elastic bone and on the athr a brittle
crumbly mass.

Owing to the extraordinary state of brittleness
of which I have just been speaking, many are
subject to, I may say, continual fractures, from
the slightest cause, and sometimes from no
apparent cause, the muscles in these cases, de-
-ubtless acting as the agent. This peculiar sus-
-ceptibility is technically termed "fragilitas
ossium", several cases ofwhich are mentioned
by Dr Gibson in his work on Surgery to which
reference has already been made. One, a young
man who died at the age of twenty three
years having experienced twenty four fractures.

Anathu, Martin Stephenson, who at about
twelve years of age, had received fourteen fra-
-ctures. His mother and her brother had suffered

in the same manner. Two other cases of fra-
-gilitis assium are related by Dr Gibson, one
of which was that of an old man about eigh
-ty years of age - The other occurred in a mid
-dle aged man. Before leaving this subject I
will advert to the circumstance which occ
-urred in the practice of our profession, and
related to the class. Two old ladies, sisters?,
sustained three fractures in the following man-
-ner - by missing the chair in attempting to sit
down and falling - also a fall from catching
the foot in the carpet - and on another occasion
by stepping upon the peel of an apple or peach
in the market.
Superficial observers, in consequence of the
frequent occurence of fractures in the winter
time or cold weather, might be disposed to
attribute it to the immediate effects of cold,
which would be foreign from the truth.
The true explanation seems to be this" person while
walking when the ground is frozen and slip-

-pery, make unusual efforts to sustain themselves by which the muscles are thrown into full action, and if they happen to fall, the two powers combined- the resistance of the frozen earth, and inordinate muscular exertion very readily produce fractures and sometimes more important injuries."

The diagnosis is not always easy, but if crepitus is distinct and deformity obvious, we are generally warranted in pronouncing it a fracture. The diagnosis of the several fractures will be considered in their proper places. Of the prognosis I shall have little to say if any thing, in pursuing the subject.

"The time necessary for the reunion and consolidation of fractures, must vary according to the age and constitution of the patient, the situation and extent of the fracture, and some other circumstances. From two to eight weeks usually elapse before consolidation is established, but a much longer time will be

required for the perfect restoration of the injur-
-ed parts."

Passing over a consideration of the fractures of
the bones of the face, upper and lower maxilla-
-ries &c, I commence with a particular desc
-ription of the fractures occurring in the clavicle.
These occur frequently, and are consequent upon
some violence upon the shoulder arm and ha-
-nd. They are generally obliqne and near the
middle of the bone. This bone is frequently frac
-tured by violence directly upon it, caused by
firing a gun heavily charged. A case of this
sort occurred in the little village in which I
live, during the month of last summer, and
was successfully treated by Dr. J. O. Marshall.
The part is necessarily painful and trollen,
and every attempt at motion produces pain.
The shoulder is sunken down and drawn to
wards the Sternum. The acromial fragment
is drawn downwards by the weight of the arm
and forwards and inwards, by the action of the

subclavian muscle, the patient usually supports his arm with his other hands, to relieve the pressure upon the axillary plexus of nerves."

The prognosis is perhaps, in every instance of uncomplicated fracture of the clavicle, favourable. The indications are very plain—elevate the shoulder, keep it outwards from the chest, and draw it slightly backwards. When the shoulder is elevated, the deformity, in a great number of cases partially or entirely disappears, and so long as pulled in the hands of the surgeon it looks quite or nearly natural; but if permitted to swing or drag downwards, it resumes its former situation, and deformity is obvious. This should at once apprise the surgeon of the necessary treatment, which consists of the figure of eight bandage, which has recently been applied, in presence of the class, in the Baltimore Infirmary, upon a patient suffering this injury; and a solid roll which may be easily made of a piece of blank

-et, wrapped with a common bandage; apply
-ing to the seat of injury a solution of acetate
of lead or of opium. This method is super
-ior to any other recommended, in its sim
-plicity, and the facility with which it may
be applied. Other modes have been employ
-ed, the most of which, if not all are liable to
one or both of two objections - they either comp
-ress the chest so as to impede respiration, or
grasp directly over the fracture so as to imp
-inge upon it, and by compression irritate the
parts. It is well perhaps to remark, some
deformity almost always results.

Fractures of the scapula will next be consid
-ered. Of these there may be three, of the cor
-acoid and acromion process, and through
the neck. The body may also be fractured
vertically and transversely.

If the acromion process is the seat of injury,
the shoulder loses somewhat of its roundness,
The head of the humerous falls slightly, and

there is a slight depression at the point of fracture." The treatment indicated, is to elevate and firmly fix the os humeri, the fractured portion of bone generally uniting by ligament.

If the Coracoid process is fractured, there is loss of power in the limb; pain, swelling and crepitation in the part. This injury is generally produced by direct violence, and the process is drawn down by the action of the coraco-brachialis, pectoralis minor and biceps muscles. The treatment here indicated is simple - pass the forearm upwards, and across the breast transversely, and secure it. Fractures of the neck of the scapula, are liable to be mistaken for dislocations; they are of rare occurrence however. In this injury the fullness of the shoulder generally remains, and is dragged down, leaving a slight depression or hollow, below the acromion process, from a sinking of the deltoid - and the

head of the humerus may be felt in the axilla. The parts may be replaced with fa-cility, causing crepitus distinctly. With a cylindrical roller or cushion in the axilla, carry the head of the humerus outwards, and raise the glenoid cavity and arm by a sling bandage.

The upper extremity of the humerus is divid-ed into head, anatomical and surgical neck. The anatomical neck is the seat of fracture in young, perhaps oftener than old persons. In this fracture we have a slight shortening of the limb owing to the projec-tion of the end of the shaft upon the cora-coid process, and crepitus is distinct.

To reduce this fracture, insert the fingers far up into the axilla and drag the shoulder down; then use the wedge shaped bolster, base upwards, for gentle support and to relax the muscles immediately concerned. The hand should be placed in a sling, and the elbow

left free. Some surgeons direct the use of splints, but here let me say that in this case, as in all others when both extremities cannot be embraced, splints are utterly useless, as has been most successfully demonstrated by our professor of surgery.

If the fracture is through the surgical neck there exists prominence forward, by the action of the muscles inserted into the tubercle dragging the superior extremity upwards and outwards, the upper extremity of the inferior fragment being drawn upwards and inwards under the pectoral muscle—the limb is shortened about one and a half inches, and the elbow generally abducted. In this case we likewise use the wedge shaped bolster, base upwards, the hand supported by a sling and the elbow left free. Here for the reasons above stated splints are entirely unnecessary.

The shaft of the humerus may be fractu-

ured bone transfixing the soft parts and frequently wounding the humeral artery rendering amputation in some cases necessary.

The treatment may not differ from that last mentioned.

I will next consider fractures of the Condyles They may be fractured in various ways. Either may be the seat of injury, but most frequently the internal — or there may be a longitudinal fracture between them, permitting the superior extremity of the ulna to be driven up. This injury may be distinguished from a dislocation, with which it is similar in appearance, first by crepitus on fraction and depression of the forearm — secondly in as much as we can flex the forearm and thirdly the olecranon procch is above the line of the condyles in dislocation, but in fractures it is not. In the treatment of this injury we should use the angular apparatus with a compress on the superior fragment and

in the elbow. To prevent anchylosis, the limb must be frequently exercised.

The elbow is a compound joint. Dislocation of one or both bones may occur - or fracture of one, and dislocation of the other, with fracture of one of the condyles. These results frequently occur from a fall or blow directly on the joint - most usually by the former.

The indications in such an injury are first to reduce the dislocation at once, and then examine for the fracture.

It is not always an easy matter to form a correct diagnosis in such complicated injuries. In the treatment we use the common angular apparatus, to keep the joint still, which is to be removed after eight or ten days and the arm gently exercised to prevent anchylosis. The lingitudinal fracture, of which I spoke a few minutes ago, may be united by a transverse one, completely separating one or both condyles from the humerus, produ

-cing a comminuted fracture.

Fractures of the bones of the fore-arm, will now be considered. If both bones or one of them are fractured near the middle the diagnosis is easy, the injury being characterised by the ordinary signs of fracture, such as pain, crepitus and swelling. These fractures are usually caused by a fall or blow, communicating a direct stroke. Sometimes both bones are broken by being caught between two substances while the person is falling. A fracture of the ulna and dislocation of the radius may occur, at the upper extremity. In such cases the angular apparatus will be indicated, as well as in the fractures of the upper part of the ulna not connected with the dislocation of the radius. If the coronoid process, is fractured and displaced backwards - which may be the result of a fall, cumberstroke and the action of muscles - bend the arm to the

breast, and use the angular apparatus at will. Compresses are also of no avail here.

Fractures of the olecranon process are generally produced by a fall or blow on the elbow. If the olecranon is fractured high up the upper fragment will be drawn up, if low down the ligaments prevent its being thus effected. To prevent anchylosis, exercise the joint after a few days, although it might retard union. The fore arm must be extended in the treatment and a straight splint of pasteboard must be placed on the front of the arm. If both the bones are broken the fracture is generally compound, but fracture of the radius alone is hardly ever compound - use two broad splints with two long compresses. The great object in these injuries is to preserve the interosseous space, for if the fragments unite at an angle pronation and supination will be prevented; therefore the splints should be

broads so as to prevent pressure upon the
bad edges, and narrow compress should be
used to press the muscles between the bones
that they may unite correctly.
In case of fracture of the radius near its
articulation with the wrist joint, we sh-
ould either use an angular apparatus to the
hands or allow the weight of the hand
to draw upward the inferior fragment.
If the hand be placed in an angular ap-
paratus, and firmly secured by a band-
age, probably union would take place earlier
as there would be no motion of the fragm-
ents. The ulna is frequently fractured
by direct violence communicated to it
by an instinctive effort to catch a blow
which is aimed at the head.
The radius is more frequently fractured
than the ulna, on account of its artic-
ulation at the wrist joint by which it
receives the stroke communicated by falling
&c.

Fractures of the carpal and metacarpal bones are of rare occurrence and are generally caused by crushing violence.

Fractures of the phalanges of the fingers are more frequent; the surgeon will not be at a loss to recognise such injuries, nor adapting his treatment.

To enter into a precise description of the fractures which may occur in the ribs, vertebral column, and coxal bones, would be to extend this paper to an unreadable length. I have concluded therefore, to pass these by - not that they possess no interest to the surgeon, but that I wish to enter into an elaborate description of the fractures, of the lower extremity, which more frequently occur, and consequently will fall more frequently under the surgeon's care.

Os femoris. This is a long cylindrical bone, indeed the longest in the human skeleton, and is subject to fractures there

-ghout its whole extent. Considering the offices it has to perform, its great length giving such a large amount of leverage, we are not sur-prised at the oft repeated occurrence of frac-ture in this bone. In consequence of the an-atomical difference in this bone, in the male and female subject, females are far more liable to fractures of its neck than are males. Its neck may be fractured within its capsular ligament, and this ac-cident often occurs in old persons, as in young persons the same violence may pro-duce dislocation instead of fracture. This accident may be produced by slight falls, muscular contraction, blows &c.

The symptoms are often obscure. We should enquire first, into the mode the injury was inflicted, and secondly examine 1st the atti-tude of the patient when we visit him;- the knee and toe will be turned out owing to the action of the rotator muscles, and the limb

shortened, the trochanter being one or two inches higher than its fellow- 2 Sensations, there is pain through the region of the groin and a want of voluntary motion, the function of the part being impaired- and 3rdly By manipulation, inversion, traction and rotation causes crepitus, and motion of the great trochanter which rotates on the axis of the shaft. The arc described will, however, be of a much smaller circle than that described by the rotation of its fellow.

When this traction is discontinued, the limb assumes the same position as before.

There may occur cases in which there will be no shortening of the limb, these forming the exceptions. "Union is possible but improbable, 1 on account of the difficulty of coaptating the fragments- 2 the want of provisional callous. 3 The fractured extremity being bathed in an increased quantity of synovial fluids- and 4 The feeble nutrition

of the head of the bone through the round ligament. Yet in a young person of a good constitution, where the periosteum is not completely severed there may be bony union." In the treatment of this accident the limb must be placed in the apparatus used by our professor of surgery - of which I will take occasion to speak more at large before I close this paper - or if that is not at hand, the limb should be supported by pillows and motion restrained.

I will take occasion here to remark once for all, that care should be taken, during the treatment of this and all other fractures confining the patient to the horizontal posture, with reference to bed sores, sloughs &c.

The neck of the femur may suffer fracture by direct violence or by counterstroke from a jump or fall, and the superior extremity be driven into the cancellated structure of the inferior, constituting an impacted frac

generally about the middle.

I will consider first those which occur in the upper third of the bone. The abductor muscles, which are short and strong, are inserted near the trochanter, while the adductors are inserted in the inner part of the bone. Fractures of the upper third of the bone, may be divided into highin and lowin - in the former case the superior fragment will be tilted or raised up, and it often occurs - by the sliding down of the patient in bed - the inferior fragment is driven under the superior. In the latter case or where the bone is fractured lower down - within the region of the upper third - the superior fragment is generally dragged out, and the lower upwards and inwards, by the action of the muscles immediately concerned. Fractures in the middle of the femur are of easy diagnosis - those occurring in the lower third, are sometimes

oblique, and almost always the inferior fragment is dragged inwards and in the region, or under the superior.

The apparatus before mentioned, is appropriate for all fractures of the femur, inasmuch as it gives to the leg what is requisite and necessary, accurate support in every part — and by the application of the hip piece, and suspension from the centre of gravity, which should never be omitted in these injuries — identifies the limb with the body. In the application of this apparatus, in the treatment of these accidents, flexion, traction and elevation are generally necessary. If this apparatus is not at hand the surgeon will have to exercise his mechanical skill in preparing such splints &c as will accomplish the ends desired: as best he may.

Fractures of the condyles of the femur are next in order, pursueing the course I have adopted.

These are generally comminuted, although we may have fracture of one condyle only – which is generally the inner one, as it is longer and oblique. Great deformity and pain exist and crepitation is distinct – the knee expanded and the patella sunken. This is a serious injury. Anchylosis must be prevented, or at any rate guarded against, by the establishment of passive motion, after the fragments are somewhat consolidated by rest and position.
The leg – unlike the thigh – has two bones; the tibia and the fibula. The tibia enters alone into the upper articulation, with the femur, while both enter into the lower articulation, the fibula however in a minor degree. The tibia is more frequently fractured on account of its exposed condition or position, and sustaining the weight of the body; the fracture may occur at any part.
It is rare for the tibia to be broken without the fibula, inasmuch as the shock or shock

which is communicated with such violence as to produce fracture of the greater, will generally produce the same result in the lesser; and more particularly are we led to this conclusion when we consider the diminutiveness of the fibula.

On the contrary however the fibula is frequently broken, while the tibia sustains no injury, or if any it is slight. Both bones may be fractured at once, by falls or blows - being generally a compound fracture, and occurring in the middle of the leg, higher or lower, sometimes together, at other times below and above, and "vice versa". The most frequent seat of fracture of the fibula, is from two to three inches above the malleolus: and indeed the Tibia is more frequently fractured by countershock, in the lower than in the upper portion, the fracture being generally obliquo. The reasons are two, first the bone above is sustained by muscles and secondly the

below bars its free. The malleolus is some-
times fractured. Existing with some of these
fractures, one may have dislocation.
In treating these fractures, one should use - if
it is convenient - the apparatus referred to
above, minus the hip-piece. Extend and
elevate the limb, keeping it quiet.
Several apparatuses, with as many modifi-
cations are recommended in our works on
surgery, of which it will not be expected of
me, to give a description.
In the treatment of simple, fractures, the Star-
ch bandage will, in a majority of cases, ans-
wer every indication. For its simplicity, ad-
aptation to the limb, and the accurate supp-
ort which it gives to every part, it deserves
the loudest praise. I have seen it again and
again applied by our indefatigable professor
of surgery, - while I have been attending his cl-
inics, and always perfectly to my satisfaction.
I could only wish I were as expert both in supp

-uring and applying this apparatus, as well as the tens of thousands of other manipul-ations in surgery, the acme of which art, if any have, he surely has attained. This is not undeserved praise. Would it be too much for me to aspire to such preemin-ence?

Fractures of the tarsal and metatarsal bones with the phalanges of the toes and the patella only remain now to be considered. Inas-much as this paper is extended far beyond my first expectation - as injuries of the tars-us & metatarsus bones and phalanges of the toes, are similar to those of the carpal & met acarpal bones and phalanges of the fingers - and inasmuch as these are all, particular-ly those of the tarsus and carpal the result of crushing violence, generally demanding amputation, I will close what I have to say in regard to fractures. It only remains for me now to say something about the apparatus alluded to above.

If I should undertake to describe its minute machinism, I am confident I would fail, and be very tedious; suffice it therefore for me to say, it may be divided into four very important portions, The hip, the thigh, the leg and the foot pieces. The first being so arranged as to enable the surgeon to remove it at pleasure, the second so as to slide upon the third gaining the important point of shortening or lengthening at will; the fourth so as to elevate, extend or flex the foot - which is readily accomplished by the thumb-screw attached, in a moment of time - and in addition to this the foot is identified with the foot piece by means of a shoe which laces upon its dorsum, and the application of a bandage, thus gaining one of the essential requisites in the treatment of fractures, gentle traction. This very important means cannot be so conveniently and easily secured by the use of any other appa-

-ratus of which I know any thing. And again by the use of the hip piece, the body is identified with the limb—and when the whole is suspended by means of a cord and staple from near the centre of gravity, if the patient should move the apparatus will also, and thereby prevent the disturbance of the fractures. This apparatus may be used in a straight or angular form and is consequently suited to all the injuries of which I have spoken above occurring in the lower extremities. The limb is placed in this, and retained by slings which may be accurately adapted to its form, thereby rendering the patient as comfortable as practicable under his injury. I say it with pride, this is the apparatus of Prof: N. R. Smith, who is favorably known to thousands, whose posterity will rise up to call him blessed. I am dear Accept of my gratitude for the assiduity with which you have imparted instruction to the medical class of which I am an humble member. N.C.H.

An
Inaugural Dissertation
on
Rubeola.
Submitted to the examination
of the
Provost: Regent and Faculty of Physic
of the
University of Maryland
for the Degree
of
Doctor of Medicine
by
Upton Heath Belt
of
The City of Baltimore
Maryland

1850

To the Faculty of the University of Maryland.

Gentlemen

In offering this the usual valedictory consisting of a few unfinished pages on one of the endemic diseases called Rubeola, I cannot but appeal to the leniency of Gentlemen who are as justly distinguished for their indulgence where deserved as for their learning. During the prosecution of my studies at your College, I became afflicted by an inscrutable visitation of Divine Providence in such a manner as both physically and mentally to deter me for a time from attending strictly ~~your~~ the teachings of your invaluable precepts, under the influence of which complaint I am still suffering in a measure, and which I hope will be a sufficient apology for the imperfect manner in which these few pages are drawn up.

The disease known at the present day by the term Rubeola or the more common name of measels, is one characterized by an inflammatory condition of the system, affecting particularly the blood and mucous membrane of the respiratory organs, which owes its origin to some peculiar morbid poison existing in the atmosphere. The nature of which we are not as yet acquainted with, of a decidedly infectious & contagious nature assigning generally as an endemic and frequently as an epidemic affecting more particularly young persons, giving rise to a set of symptoms hereafter to be described, the most prominent of which is a peculiar eruption of the skin strictly pathognomic of the disease.

Causes. The great and only efficient cause of the disease is either being exposed to the atmosphere in which the peculiar morbid poison which gives rise to the disease is disseminated. Or by

coming directly in contact with a person who is affected with the disease. In proof of its contagious character it is only necessary to state, that many eschrimenters have given accounts of harm produced the disease by the introduction of a small quantity of blood taken from a person labouring under it, and introduced into the System of a person who is in perfect health; and although Some have failed, the eschrimments of Dr Horne of Edinburgh and an Italian Physician named Spallanzani are decidedly conclusive.— It is also capable in a measure of being propagated by fomites As to its contagion, then, and its capability of being produced by inoculation there can be no reasonable doubt, but as the disease is rendered milder by such a procedure we can have no inducement to urge it to its performance. but rather leave the child to acquire the disease in the

ordinary manner or entirely escape
an attack

Symptoms. Like all other in-
flamatory affections Rubeola is generally
ushered in by a decided chill followed
by fever, generally of the Strong or as Cullen
terms it the Synochal type, the eyes are in-
flamed, watery and sensitive to light; there
is a copious flow of limpid mucous from
the nostrils; The fauces presents a red appear-
ance, the whole of the mucous membrane
lining the Larynx trachea and bronchal
tubes roughly inflamed, as is shown by the
harassing cough which always attends it.
a cough which has a peculiar hoarse or
rushy sound, which has often been
mistaken for the coming on of an attack
of croup. —
We find also a great feeling of uneasiness,
considerable pain in the back loins and
limbs, always more or less headache. Some
times very severe. furred tongue heat of
Skin acceleration of the pulse. —

The bowels are generally constipated, but in some instances there is diarrhoea indicating a simultaneous affection of mucous membrane of the intestines: frequently we have vomiting owing to the irritable condition of the stomach which ceases however on the appearance of the eruption.

These the catarrhal symptoms continue generally for four days but sometimes for a much longer period.

When the eruption makes its appearance it first shows itself as minute papules which multiply and run together as it were and form blotches of a crescentic or semilunar form leaving portions of healthy skin existing between their edges and not like scarlet fever affecting the appearance of the whole cutaneous surface.

It is generally from two to three days from the time of the first appearance of the eruption before it is wholly out, beginning

on the face first, then affecting the body, then extending to the upper extremities and finally over the lower extremities. on the seventh or eighth day of the disease should none of the serious complications as pneumonia pleurisy dropsy &c. which are frequently complicated with or remain a sequel of the disease occur, the eruption begins to decline disappearing first from those parts on which it first made its appearance. desquamating in the form of very small bran scales differing in this respect from the desquamation of scarlet fever. which occurs in flakes of appreciable magnitude; sometimes but very seldom I believe, are have together with or intermixed through the eruption a few small miliary vesicles.

Diagnosis. It will be in many instances impossible to form a correct diagnosis of Rubeola during the earlier stage of the disease, from the close resemblance of the symptoms existing between them and

and those of the other exanthematous diseases; all the various circumstances of the case must be taken into account If we are certain that the disease exists any where in or near the locality, and a patient is seized by the various symptoms usually found to exist in the beginning of measles, as cough hoarseness watering of the eyes running at the nose generalized feeling of uneasiness or pains in the limbs &c &c it is proper to infer that the case will probably be one of the diseases in question, and direct our treatment accordingly — if the case be not well marked in other respects, when the eruption makes its appearance. we can no longer doubt the true nature of the disease.

The chief points of difference between Rubeola, and Scarlatina are in the first stages the more general existence of catarrhal symptoms in measles than in scarlet fever. the eruption being of a semi-circular form. coalescing and leaving

portion of healthy skin between these
swellings, and the diffused redness of the
skin in scarlet fever. – The skin too in
Scarlatina is much hotter and the pulse
much more frequent than in Rubiola
The length of time which elapses from the
beginning of the two diseases till the ap-
pearance of the emption is very different
and furnishes valuable information when
we are in doubt. The emption in Scarlet fever
is very seldom defined longer than the
second day of the disease while that of
measels never occurs before the fourth day;
From the small hose there can be no
difficulty in discriminating it when we
take into consideration the peculiarities
of the eruptions attending each disease.
Prognosis
When we have simple uncomplicated
measels to deal with we are warranted in
a large majority of cases in giving a
favorable prognosis.
But as it frequently happens we should
have an intercurrent inflammation of the

bronchal membrane pulmonary tissue the termination is at the best doubtful, sometimes we have during the progress of the disease an attack of true membranous croup and when such a complication does come on the case very generally terminates fatally. It is a remarkable fact from what cause I am not acquainted, that this affection occurring in adult or old age is more apt to prove fatal than in children and from the liability to ~~thoracic~~ affections more fatal in the winter than in the summer months. It is said that in pregnant & more particularly puerperal females the disease assumes an aggravated form. The supervention of affections of the bowels, as diarrhea dysentery &c or of the brain necessarily give rise to more or less apprehension, according to the character and severity of the complication.

Dr Hood says "Among the unfavorable signs are universal severity and continuance

of the early fever with fast pavement of the eruption; a sudden disappearance of the rash in connection with evidences of internal irritation or great prostration; severe dyspnoea and other symptoms of considerable pulmonary inflammation; great restlessness, delirium or coma; a continuance of fever, cough and dyspnoea, after the regular decline of the eruption; a complete loss of voice with dyspnoea, and evidences of malignancy such as a weak pulse a livid colour of the rash, petechiæ and passive hemorrhage.

Treatment In the treatment of measels, we should always bear in mind, that it is one of the specific inflammatory diseases, and will run a certain course in spite of all the medicines in the whole materia medica, therefore it is useless to attempt to cut short its progress by blood letting and the administration of drugs &c, which can have no influence in producing a good effect and may in many cases prove highly injurious

all we can do is to manage the case, and watch carefully for any complications which may arise, and apply the proper remedies to such complications.

When the attack is very mild, perhaps nothing more will be requisite, than to confine the patient to the house or more properly to a single room. the temperature of which should be kept about the same both day and night, at the same time keeping him on low diet; so that the bowels are kept soluble by mild laxatives, and prevent all exchange to a cold or damp atmosphere; from the great tendency to pulmonary and bronchial inflammations a patient laboring under measels as a general rule should be kept in a warmer apartment than one laboring under either small-pox or scarlet fever. but caution must be exercised in order to prevent oppression from too great a degree of heat, or by the use of too much bed clothing. Children require to be closely watched, to prevent them from

throwing off the clothes and thereby rendering themselves liable to attack of cold which may result in disatrous consequences. In a very mild case if the above precautions are strictly attended to the case will generally terminate happily.

When the case is more severe, the proper mode of treatment consists in giving the patient laxatives or mild purgatives of a saline character, of which there are none better than Rochelle salts or castor oil: give him demulcent drinks, such as elder blossom, flaxseed tea a solution of gum arabic slightly acidulated: the infusion of slippery elm. bark to which a very small quantity of Antimonial wine may be added, or we may give some slightly stimulant & caphoretic as horsetea.

When the skin is hot and the patient suffers great benefit may be derived in some instances by giving some of the neutral non purgative salts, as citrate of potassa, by the carbonate of soda or potassa &c, cold

bathing cannot, as in scarlet fever, be used but if the distress is great tepid sponging may sometimes be employed.
Should much bronchitis come on or if we obtain evidence of inflammation of the lungs we should treat the case as we would an idiopathic attack

An Inaugural Dissertation,

On

"The Malignant Typhus Epidemic

of 1849

At Balt Alms House," Submitted

to the Examination of the Board,

Regents and Faculty of Physic

of The University of Maryland,

for the Degree of

Doctor of Medicine. By

William A Berry — A.M. —

of Georgetown

District of Columbia

January 1850.

Malignant Typhus Epidemic at the Bath Alms-House - 1849 -

Name of the disease - Some difficulty existed for a time at the Alms House, as to what should be the title of this new and complicated disease, which so unexpectedly insinuated itself in our midst. As will be seen from perusal of its History, progress and termination, that to define exactly what it was, was a difficulty of no trivial Character; Intelligent and eminent Physicians debated for a long time what should be its name, and finally determined to Christen the new Born with the appellative of Malignant Typhus, modified by race, circumstances of life and season of the year.

Mode of access - The initiation of an attack of this fever was constant in its nature in almost every case. In a large majority of cases, the Patient complained of an indescribable condition of ill-health for some days previous to its formal attack, such as vague pains all over, weakness, loss of apetite

and

unwillingness to exertion, which in a few days was followed by a well developed Chill in most cases and in others by rigors. This condition was succeeded by nausea in some and vomiting in others, of bile and food last taken. pain in the Head and Back, prostration and great loss of strength.

Heat and State of the Skin. The initiatory Chill was followed by great heat of skin, increased action of the pulse. On applying the hand to the Body of a Patient, a sensation of pungency and crispy dryness was communicated, such as we rarely find in fever of any other character. No peculiar Odor was observed to emanate from the Bodies of Patients sick of the Fever, than what belongs to the negro race, which in all possibility from its well known character might obscure any that should be produced by disease.

Pulse. The Pulse was uniform in the majority of cases at the same period of the disease. The condition of pulse accompanying the attack was generally full and of good volume, but diminished

in force and frequency as the disease progressed. Patients would be admitted with a pulse ranging from 90 to 130 and would soon fall to 75 or 80 and continue so to convalescence. As a general condition it was small and frequent in the severe cases. Some few presented the dicrotic pulse. Other characteristics are not easily defined. The pulse was not in proportion to the excess of temperature, we would have a small and frequent pulse with a moist and clammy skin.

Thoracic Symptoms. There was some lesion of the respiratory organs in the majority of cases. Nearly every case would present a sibilant and moist rale. a few others again were complicated with Pneumonia, an accident. In one case we had a double Pneumonia and in five others Pneumonia on one side. The respiration was fearfully increased in the worst cases and would appear to be the only embarrassment under which the Patient labored. In two cases the number of respirations in the minute were as many as 78 & 75.

Nervous Symptoms - Nervous symptoms were very rare; we observed no convulsions and only occasionally slight tremulousness on protruding the Tongue: in a few cases delirium of a low muttering character preceding their demise.

Head-ache. Pain in the Back and limbs - These conditions were constant - Patients complained of violent pain in the Head, in the supra-orbital regions - it generally abated with the other symptoms.

The Mind - The mind naturally obtuse, was confused and cloudy in many cases and again it could be unaffected - Many gave conflicting accounts of themselves and some were unable to give any. Perfect stupor was rarely seen during the progress of the disease - The sleep was disturbed and imperfect: rarely refreshed in the Morning.

Physiognomy - It was difficult to decide as to the Physiognomy of the negro - They generally had a dull unexpressive look. Notwithstanding the dark colour of the negro, the deeply jaundiced condition was apparent through every tissue. The lips, gums

conjunctiva, arm-pits and groins of the darkest complexion were of an universal yellow hue. The conjunctiva was very much suffused and the capillaries injected with a dark coloured Blood. Spots of ecchymosed Blood were found under the conjunctival lining of the eyelids

State of the Senses. Vision was not impaired in any case, except on assuming the erect posture, which would be accompanied by swimming in the Head and some confusion of sight. Considerable dullness of hearing was manifested in many cases. There was great morbid sensibility of the entire surface; pressure any where would produce pain in the severe cases. You could not detect pain on pressure more particularly in one place than another, excepting in the epigastric and right and left Hypochondriac regions.

We observed great muscular irritability in the severe cases.

Debility. Debility was constant in every case; Complete prostration in many.

Tongue & mouth - The tongue was nearly uniform in its appearance; in the early stages it was very vesicid and covered with a yellow deposit - The tip and edges were red and dry - and in the advance of the disease this condition would be followed by a dry and cracked state of the organ - Sordes about the mouth and teeth - In a few cases the tongue was red and dry - and presented great difficulty ~~in~~ of protrusion.

Apetite - There was total loss of apetite and great disgust for food at the beginning and acme of the disease, but convalescence was accompanied with an insatiable one.

Nausea and Vomiting - These symptoms, one or the other are present in every case. Vomiting very profuse in some cases; matters at first consisted of half digested food, but after the disease set in, there was vomiting of a thin, watery fluid, with particles of Black sediment at the bottom of the vessil, looking like coffee grounds. This Black vomit, if we may so call it, was not

apparent in many cases, about one Third and generally of those that proved fatal.

Bowels. The very seldom had tympanites. great epigastric distress on pressure. tenderness over the Liver in very case. in a few cases slight tenderness in the right iliac region. The Bowels were confined in the majority of Cases, a few were troubled with Diarrhoea in the Course of the disease, but Constipation with its commencement. The stools were thin, black, and acid. preternaturally offensive.

Emaciation. was not very great. excepting in cases of protracted convalescence. The Patient could be improved about the tenth or twelfth day, improvement after that time was rare.

State of the urine. The urine was observed to be scanty and high coloured, again of a properly yellow colour and could stain the sides of the vessel with the all present yellow bile. Chemical analysis detected nothing * uncommon with fevers of other types. * The urine was tested with nitric acid and found to contain a large quantity of Bile.

Epistaxis - Hemmorhage from the nostrils was quite common and in some cases very profuse so much so, as to demand the use of the Tampon and Sponge -

Cutaneous Eruptions - None were apparent except in the case of a Bright Yellow Man, who had well marked Petechiae over his entire Surface. The case proved fatal

State of the Blood - The Blood was viscid and very dark colored - from an analysis made by Dr Chas Hooker, There was found to be an excess of globulin and fibrin -

Anatomical Lesions -

Of Thirty eight post mortem examinations made at the Alms House in the presence of Drs Buckler, Power and Hooker. The following anatomical Lesions were found, which possibly may occasionally savour of a slight inaccuracy -

External appearance of the Body - A most Constant condition was an entire absence of any thing like emaciation - Nearly all the fatal cases presented

their usual embonpoint: when a case was fatal, it was generally in so short a time, as to allow of but little wasting of flesh. An universal yellow hue was marked on looking upon the surface of the Body, and even in the darkest it was perceptible at certain parts. The arm-pits, neck &c. The conjunctiva preserved its yellow hue after death. Rapid decomposition took place in from ten to eighteen hours, shewing the alteration in the fluids and solids. The cut surfaces presented the yellow appearance and the lining membrane of all the Splanchnic Cavities. The muscles were soft and flabby and tore readily before a dull knife.

Thoracic organs. The Pleural investment of the lungs presented the jaundiced appearance over its entire surface; some points of ecchymosis were apparent under this investment. The condition of the parenchymatous structure was not very constant; in many cases splenization was present, again congestion and passive pneumonia, in a few

cases we had Pneumonia of the most active type to deal with. Points of apoplexy in various parts of the Lungs was very frequent. The Bronchial tubes presented appearances of various degrees of inflammation. From the cut surface of the parenchymatous structure we found on pressure an abundant pouring out of frothy serum.

Heart - Yellow but externally and beautiful points of ecchymosis in the region of origin of large vessels. Muscular Structure very flabby in all cases and of the Consistence of Lard - in some cases we found it almost decomposed so much so as readily to allow the finger to be thrust through it. Right cavities of Heart generally free from clot, occasionally a small one in the Left - Blood fluid and very dark.

Brain - presented a healthy condition, the membranes of the common yellow tinge.

Stomach appeared every degree of inflammation; punctiform injection about the Cardiac and Pyloric orifices - Softening of the mucous Coat and

* The duodenum presented different grades of inflammation at times and again it would be perfectly healthy. in the majority of cases it was affected.

excessive congestion - In some we found a quantity of fluid similar to the coffee-ground fluid vomited during life - in some again we had in addition great capillary congestion, the mucous coat being of a bright vermillion tint, as though it had been exposed to the atmosphere for some time

*Duodenum, jejunum and colon healthy - The Ileum presented different grades of inflammation, from the most intense to simple Capillary Congestion - Peyer's patches healthy and never presented a trace of Typhoid alteration. In some severe cases, the isolated follicles were engorged with blood - in others by scraping off the caps of the follicle, a particle of coagulable lymph could be found in the Capsule - "Follicular enlargement results from congestion in their vessels and from occasional particles of effused blood in their Centres, in fine follicular apoplexy." Dr TH B.

Mesenteric glands not altered in any respect.

Liver - The Colour and size of the liver was somewhat variable - Consistence Changeable.

The liver edges were generally more jagged than usual. On squeezing the cut surface a quantity of Blood of the consistence of current jice was exuded, this was invariable - Gall Bladder full and sometimes dis-tended - Bile dark coloured, grumous and viscid.

Spleen, presents various conditions, abnormally large in some; in one case four times the natural size - Colour slaty when first cut into, but in a moment looking more like dashery jam. Capsule readily stripped off -

Kidneys in some cases were much engorged - points of ecchymosis were found on the external investment - some presents numerous points of renal apoplexy -

Bladder sometimes full and again contrac-ted in itself -

Causes of the Fever -

Locality - It is impossible to limit the sphere of this Epidemic - Cases were brought to the Alms House from all parts of the city; but by far the majority were from the same neighbourhood the Points from

Mikes Street, Tripolets alley and the lowest and most filthy portions of the city. Nehliah's Castle was a great entrepot for many. In any case the one had some connection with the other. Occasionally a case would represent itself from the upper part of the city, but friends or labour generally carried them to the Point or its neighbourhood.

Season & Weather. This Epidemic made its appearance about the 1st of May and proved fatal in nearly every case; its violence abated somewhat about the 12th of June. The cases which appeared after that time were precisely similar to the first in their mode of attack and progress, symptoms not as violent and fatality not as great by half. Post-Mortem appearances did not exhibit lesions of such aggravation. The spread of the disease was so rapid as to induce the City authorities to establish a Hospital in the limits of the city on the 25th June. A Gentleman from the Alms House, Dr Jenkins, was appointed to attend the sick. from him we learn the abatement of the disease in number and

severity. On the 10th of August the cases were so few as to cause the discontinuance of the Hospital in Bloomsbury Street. From that time (10th Aug) to the 3rd Oct we have had a few cases of mild character and very manageable.

Infection. This question has been satisfactorily settled in the affirmative. In every case this has could be clearly established from the History of the case. Previous to the Transference of Fever patients from the City to the Alms House, there had been nothing of the kind in the Hospitals. During its height it attacked persons confined in the Cells for Insane Paupers, and of the whole number, ten, eight were taken and four fatal cases. Nurses in the Hospitals who had been inmates of the House for some time, were taken with the Remittent Fever and in two cases proved rapidly fatal. Post mortem lesions were found similar to those in the cases transferred from the City. On the 3rd of Oct. a family consisting of man wife and two children were brought to the Alms

- House. The Wife was labouring under an attack of the Fever. Husband taken sick two days previous to arrival here, had been nursing wife. His condition precisely similar to that of his Wife. The two Children not comparatively ill: three days after their admittance to the House, both Children were taken with the same fever and very ill marked. These cases were of a mild grade and all recovered.

Crowding. Filth & Want. These conditions were found accompaniments in nearly every case. The victims of the fever were the worst of their race in every respect; addicted to vices of every description, and from an examination of the premises which they occupied, they were more fit for the quadru-
- ped than man. The Apartment at the Alms House, wherein so great havoc was committed, was the darkest, dampest, most ill-ventilated portion of the whole place over the occupants were fit subjects, from their close confinement and almost necessarily filthy condition.

Age. None were exempt. Patients were attacked

from five years up to old age. But most cases were those of adults and persons addicted to every vice-sex. The number of cases were nearly divided. The disease was much milder in the female and the mortality not half as great.

Duration and March - The acme of the fever was generally about the eighth or ninth day; in favourable cases a gradual improvement would commence from that time. Unfavourable cases would prove fatal in from ten to fourteen days.

Mortality - During the first outbreak of the Epidemic the mortality was truly formidable. From the 1st of May, the date of the appearance of the first case to the 30th of same month, twenty two cases of males were brought from the City and eighteen of twenty two cases proved fatal - at the same time it was more fatal among the female coloured than at any other.

The Total number of males affected was 38

Total number fatal 23.
Got well 15 } 38

Total number of Females 40

" " " fatal 15 } 40.

" " got well 25 }

Nos of cases at Orleans St Hospital under the charge of Dr Jenkins " " " 60

Nos of cases fatal " " 20 }

" " got well " 40 } 60.

Treatment. Blood-letting was not practised in any of the cases first brought out. They were sent to the Alms House at a date of their arrival, which entirely precluded any thing like depleting measures. Local abstraction of Blood was found beneficial in relieving the great epigastric distress and excessive engorgement about the Liver. On the 16th of June, Blood to the amount of eight ounces was drawn from the arms of two men laboring under the Fever, at the request of Dr Frick, for the purpose of analysis. Both cases were severe and they suppurated much for a few days following, one case rapidly recovered the other proved fatal. From this time, cases were sent out by the

Police at a much earlier period of the disease, and we were enabled to use Blood-letting to a considerable extent during the first stage; it proved universally advantageous and where it could be practised early enough was successful in every case. The condition of the Patient was very materially changed after this practice. a hot pungent skin with a pulse of 130 and quick was followed by a moist and pleasant condition of the skin and the character of the pulse very materially altered. At the commencement of the Epidemic, we pursued the treatment of Continental Physicians, used no depleting measures as Blood-letting purging &c. but stimulated entirely. Men & Women habituated to Drink were allowed their accustomed stimulus, but no benefit being derived it was changed for treatment, which proved more successful. Turpentine as a Capillary stimulant was used to great extent and very satisfactory results were derived. Opiates proved beneficial. Mercury in small doses,

nux vomica &c.

Remarks. The principle characteristic of this disease was the invariable condition of the liver, attended by profuse jaundice, which was apparent in every tissue and fluid of the Body. Another feature in the Epidemic was its being confined to negroes entirely. We had during its prevalence, one case of Typhus accompanied with jaundice. It occurred in a White woman residing in the limits of the City. The season of the outbreak of the fever was too early to attribute it to a malarious origin and its strong infectious character would preclude any thing like Remittent fever of any modification. Dr Graves of Dublin, in his remarks on an Epidemic Typhus, which occurred in that City in 1827. says "It was a bad gastro-Typhus. The Chief interest attached to it arose from the circumstance of its forming a very striking link of connection between the ordinary gastric fever of Ireland and the yellow Fever of warm countries. The Pneumonia, which characterized this Epidemic convinced me and every one, who

witnessed it, that the Common gastro-typhus of this country and the yellow fever of America, Gibraltar and other places, differ only in degree and not in nature. The disease set in with all the usual symptoms, violent heat of skin, a quick small pulse, sweating, restlessness thirst, nausea and vomiting and abdominal tenderness; This state of things went on for two or three days and then the Patients became suddenly and universally jaundiced. The symptoms now began to assume a greater degree of malignity; vomiting came on; a quantity of dark coloured substance resembling coffee grounds was thrown up and the case most commonly had a fatal termination. We may observe, that in that Epidemic, as well as in the present, a close inquiry into the history of numerous cases has convinced us that the gastro typhus of this country as well as the yellow fever of warmer latitudes may arise spontaneously and be propagated by Contagion".

The following case is one, chiefly interesting for the intensity of its symptoms, which were more apparent after death, than during life -

Case 1st - George Hall, Col. entered the Hospital in a moribund condition, on Thursday, June 14th at 9 o'clock A.M. and died 15 minutes after arrival. We were unable to learn any thing from the Patient himself, but derived something from the Driver who brought him from Town - Patient lived in the Town on Canal Street, near the Dock. His Father was sick in the same way in the same room and was convalescing at the time: all that we could learn. This man was large and of good muscular development - not a trace of emaciation, but apparently of the best health - His countenance was good and likely, eyes as bright as in one of health. An attempt was made to arouse the Patient by administering Brandy and diffusible stimulants, but to no avail. He died in a few moments apparently Comatose - Autopsy three hours after death - External appearance

of the Body as above stated. Eyes much jaundiced. Cornea as bright as in life. Inprem of all the cut tissues with Bile. every pore and substance thoroughly injected. Cartilages of the ribs yellow externally and on their cut surfaces. Intestines not as bright on their external surface, but more lubricated than normal. Peritoneum of a deep yellow. On turning over the Body, a quantity of urine of a deep yellow colour flows from his Bladder. Muscles flabby and soft. Much dark fluid Blood flows from his Heart and large vessels.

Heart. External surface much jaundiced. particularly the adipose tissue. Pericardium of the same appearance and contains more fluid than normal. Under the investing Membrane of the Heart, are fine dark ecchymosed spots of the size of a pea; when cut into these spots present the consistence of a clot. Muscular structure of the Heart soft and flabby. No trace of clot in either Ventricle. Brain. On removing the Calvarium the tissue of the dura mater presents a yellow matter of thin consistence and highly tinged. The falx-cerebri is of a deep reticular tint;

its appearance not materially altered by wiping away the Blood - The arachnoid, pia-mater and convolutions of the Brain are not present The yellow tinge, but hardly the faintest tinge - The corpus callosum, pons varolii and white tissues of the Brain present no traces of yellow - Lungs - The external surface presents a number of dark ecchymosed spots on the anterior and posterior sides of the lower lobe of right lung ones on the inferior margin of the lower lobe of the same. The upper and middle lobes of the same lung crepitant - lower lobe less crepitant and at a point splenified. Points of pulmonary apoplexy throughout The cut surface of the lobe - no similar appearance in the upper lobes. Pulmonary hemmorrhage from transpiration and extravasation very common in all of the cases and particularly in this - Stomach - Exaggerated signs of inflammation of the stomach, such as occur in no other disease except typhus fever. Hardly an appreciable quantity of fluid in the stomach, of thin consistence and dark color - Signs of capillary congestion very marked and unusual, being as

though exposed to the air for some time and of a bright vermillion tint - Mucous membrane corrugated and puckered on itself as though earth-worms were doubled under the mucous coat - the same coat much softened and thickened - Ileum - about three feet were taken out commencing from the head of the colon - most uncommon signs of inflammation - great capillary congestion throughout and of the brightest vermillion tint - velvety appearance when brought to more light - No Typhoid alteration of Peyer's patches or of the isolated follicles - The capillaries going to the formation of the patch deeply injected Isolated follicles elevated and some larger than others - deeply injected and red - by scraping off the caps of the follicle a small patch of coagulable lymph will be found enclosed; others when their caps are removed present points of extravasated blood - we suppose follicular enlargement results from congestion of their vessels and from occasional particles of effused blood in their centre - The follicles are more enlarged as we go toward the

Ileo-cecal valve. The ulceration of the isolated follicles is nearly lost at about 2 or feet from the Head of the colon. The Blood in a cut follicle has a thin appearance similar to that of current juice. The mucous patch emanting from the Head of the colon is of a deep vermillion tint and mottled hue of red from its mingling with dark points giving somewhat the shaggy beard appearance. They present no trace of typhoid alteration. The appearance of the mucous membrane is remarkably velvety and much congestion of the capillary vessels which supply it. The patch occupying the appendix vermiformis is injected every where and much congested, but not of so deep a red as the mucous patch emanting from the Head of the colon, before described. Liver. somewhat larger than usual. cut as firm as in health, but when torn more jagged than usual. we find no softening. On squeezing the cut surface of the Liver a quantity of Blood of the consistence of current juice issues from its entire surface. The hardness of the Liver

results from supposed Hepatitis having occurred during life, resembling the lung in the fourth stage of Pneumonia of Stokes. Spleen presents four times its normal size, of slate colour when first cut, but in a moment looking more like raspberry jam. The Capsule of the Spleen is torn off with great ease. Consistence firmer than natural, probably resulting from old Splenetis - old inflammation of the peritoneum lining the Spleen. Kidneys. Transpired blood of a deep purple colour near the Malpigian tufts. The Centre of the Kidney presents numerous points of effused blood to all appearance outside of the tuft and evidently extravasated. numerous points of renal apoplexy. Mesenteric glands yellow, but not altered in other respects.

Case 2nd. Charles Cooper. Colored Boy. aged 10.
entered the Hospital to day June 19th. has an
intelligent countenance and good muscular
development. has enjoyed good health previous
to the present attack. This Boy is from Ellsley
on the Point, near the wharf. His Mother has been
sick of the prevailing Epidemic for the past
three weeks at the Alms House and stopped the
morning that her son was brought in. Patients
Father died two weeks since of the Fever. a woman
has been sick in the same House with this little
Boy and is dead. He also tells us that his sister
a few years older than himself is sick at
home. Patient occupied the same story of a small
Brick with his Mother Father & sister in one
Room. His bowels & skin have been very good. A
number of persons were sick in the same neigh-
-bourhood, some of whom we have in the house
at this time. This Boy came to the Alms House on
Friday last to see his mother. He says he was taken
with a severe pain in his head back & limbs.

* N B. When Patient first entered the Hospital, we observed the remains of a blister on the back of his neck, with large vesications containing a quantity of deep yellow serum -

neither preceded nor followed by a chill on the 16th - his bowels were loose and open four times on Saturday on that day he says he vomited a great - deal - none since - Present symptoms - Tuesday 19th. fourth day of sickness - Pain in the head, more severe in the morning than evening - Vascular injection about the eye and conjunctiva jaundiced - Countenance expressive of much distress - Tongue white and red about the tip and edges - tenderness all over the abdomen, particularly the Epigastric, right and left Hypochondriac regions - more tenderness in the right than left iliac region - Bowels open five times to day, but a little at a time - no meteorism of abdomen - Urine abundant and high coloured, leaving a yellow margin around the vessel - pulse 134 and full - respiration 45. slight sibilus and sonorous rale in the middle lobe of right lung - Dr Buckler saw him to day and ordered R Quinine Sulp ʒß. Syrupus simplex ʒi. aqua ʒi. M - Tea spoon full every 3 hours. R. H Terebinth ʒi - xx gtts every four hours - venesection ℥s - Pulse previous to venesection 134 and of

good volume. after 132 and much reduced in
strength - Wednesday 20th - 5th day - Patient seems better
this morning - pulse 118 smaller and compressible -
no head-ache. eyes more jaundiced - tongue furred
whitish all over - slept for a few moments at a
time during the past night, but was very uneasy -
abdominal condition about the same - two stools
last night and passed one of them in Bed -
passed also an ascarides lumbricoides about four
inches long - respiration &c. countenance indicative
of distress - skin warm and dry - complains of
wind in his ears. Eye & Pulse - No improvement - disposed
to be drowsy but cannot sleep - very restless - pitching
about in the Bed - eyes more injected - tongue coated
yellow - skin hot & dry - much pain in the head -
passes his evacuations in the Bed - pulse 136, small
and compressible - Thursday 21st, 6th day - Patient
nearly the same this morning - rested very badly the
early part of the night, but pass that time slept
for a while - Countenance dull and sleepy - eyes
eyes heavy & drowsy, much jaundiced - no head-ache

Tongue about the same appearance - exquisite sensibility over epigastrium and right Hypochondriac region - Complains of pain in his back - great jactitation and retains the dorsal decubitus all the time. Bowels open during the night, thin and dark - Pulse 112 and small - 1 Pill. Dr Buckler saw him at this time - pulse quick and small - R. Port Wine ℥vi - Table Spoon full occasionally - Eve 1 Pill - Patient somewhat improved - pulse 96 and fuller - one stool to day - thin dark & very offensive - more easy and at present is sleeping quietly - R Pulv Doveri grs viij - Pulv 1 - to be given if does not sleep to night - Friday 7th day - Great improvement - not as much jactitation - Countenance better and more expressive - Retina well all night - Tongue not as pointed nor as red about its tip - not much abdominal tenderness any where - Bowels moved well during the night, thin and dark - Respiration natural - skin warm and more moist - pulse 110 and fuller - appetite returning - Eve 1 Pill - Patient doing well - Bowels open - little tenderness remaining - Pulse 96 and good volume - free from head-ache -

Saturday 8th day - This Boy is doing well - Countenance good - tongue cleaning - Bowels open - apetite much improved Pulse 90 and good volume - Sunday 9th day - Patient improving - tongue clean - eyes not much jaundiced. Pulse 88 and full - feels weak, but is anxious to get up and walk about - Monday 10th day - Patient sitting up in Bed, says he is well and wants to go home - Thursday 13th day - This Boy complains to day of uneasiness about his stomach, but since last date has been doing well with a natural pulse and improved apetite - This morning he says he feels badly about his Belly - Tongue coated whitish - some tenderness over Epigastrium and considerable tympanites - complains of pain in his back. Bowels confined - R. Sal Rochelle ℥ß - R. Ol Terebinth ℥ij - Gum acacia ℥iß - simplex Syrupus ℥ij - aqua ℥iv - m - Table spoon full three times daily - Friday 14th day - Patient not so well - Pulse 130 and very full - Skin hot and dry - Tongue furred - Epigastric tenderness - Bowels open last night - complains of head-ache and pain in his Back - Saturday 15th day - Patient

better to day. pulse 92 not of as much volume as yester-
day. Countenance better and free from Head-ache
this morning. Tongue still furred. apetite improving.
Skin warm and moist. Bowels free. some Epi-
-gastric tenderness. Sunday 16th day. Patient doing
well. no abdominal tenderness. no head-ache.
Skin and pulse natural. Complains of pains
in his legs as most convalescents from this fever
have done. Monday 17th day. Doing well. nothing to
note. Friday 21st day. Patient discharged from the
Hospital perfectly well.

It may be worth while to say, that this little Boy
was a victim of the Asiatic Cholera a few
weeks after his recovery from the attacks of Typhus.

We forbear saying more, relative to this almost boundless
subject of fever, knowing that this Epidemic of Typhus
will be handled by a more masterly mind.
We conclude, by indulging the hope, that this
our humble effort, may meet the approbation
of the Faculty of Physic, of the University of Maryland.

An

Inaugural Dissertation

On

Measles

Submitted to the Examination

Of the

Provost, Regents, and Faculty of Physic,

Of the

University of Maryland

For the

Degree of Doctor of Medicine

by

Philip S. Spindle

of Virginia.

March. 1850.

Measles is a contagious febrile disease, characterised by catarrhal symptoms, & the occurrence of a rash upon the skin about the fourth day, without the disappearance of fever. There is no certainty that it was known to the ancients. The first accurate accounts of it are given by the Arabian writers. Rhazes ascribed it under a distinct name in the ninth century. It was confounded with small pox for a long time by modern physicians. The symptoms often commence with lassitude, chilliness, & aching in the limbs, followed by frequent pulse, heat & dryness of skin, loss of appetite, furred tongue, & occasionally headache, & the other signs of fever. But not unfrequently, antecedent to these, symptoms of irritation of the mucous membrane of the eyes, nostrils, fauces, larynx &c, such as profuse discharge of tears, sneezing, slight soreness of the throat, roughness & hushing of the voice, a dry hoarse cough

& occasionally tightness of the chest & dyspnoea make their appearance. Sometimes epistaxis, epigastric pains, nausia & vomiting occur.
The bowels are usually constipated, but sometimes the reverse. In young children, convulsions are not rare especially during the period of teething. In the early stage of measles, the symptoms vary much in character; generally there is nothing more than symptoms of catarrh; & again the febrile action may run very high; there may be symptoms of severe bronchitis & pneumonary disease. The symptoms increase for a few days, remit, & return upon the breaking out of the rash. If you examine the fauces a little before this occurs, the palate & uvula will often present a punctuated redness. The eruption generally begins about the fourth day; though sometimes it does not appear for a week or ten days after the invasion of the disease. The rash is at first in small distinct red spots like flea bites; which disappear on pressure. The rash first shows itself on the face

& neck, & then on the trunk & finally on the
extremities. There is often an interval of two days
between the appearance of the eruption on differ-
-ent parts of the body. The rash soon loses its
isolated character & becomes more confluent, arranging
itself in irregular clusters, which are often
crescentic, & always leaving intervening spaces of
the skin, little if at all affected. The eruption
feels slightly rough under the fingers, & though
red has a somewhat darkish tint.
The colour of the rash is by no means uniform,
being brighter when the fever is highest, & more
so on the face, than else where, on account of
its vascularity. In some cases, a minute papular
eruption mingles with the rash, & sometimes,
minute vesicles are observed. The amount of erup-
-tion varies very much; sometimes, very few
spots ~~present~~ present themselves, and at others
the whole frame is covered. Sometimes instead of
commencing on the face, it commences on some
other part of the body, especially if previously

irritated, or inflamed. In some cases, it does not spread, but confines itself to the part upon which it first appeared. When at its height, which is the second or third day, it is frequently attended with an itching & heat of the skin.

Neither the catarrhal symptoms, or the fever pass away on the appearance of the eruption, on the contrary they in some instances are increased. The eyes are now red, the lids are humid, & in a great degree the whole face is swollen.

Dyspnoea, vomiting, abdominal pains, convulsions, & other signs of nervous disorder show themselves, they often cease when the rash is fairly out.

The cough still hoarse, now become more loose & a transparent mucus is expectorated. About the eighth day, the rash, fever, & catarrhal symptoms begin to disappear together. The eruption declines in the same order that it appeared, first from the face, & lastly from the extremities. Sometimes the whole duration of the eruption is not more than a day or two, & at others, it lasts for a week or more.

The red colour gives way to a yellowish hue, & the cuticle separates in fine scales. But desquamation is not uniform; occasionally it is observable on the face, & breast alone; it is always limited by the extent of the eruption, & sometimes it is entirely wanting. As the fever & the eruption decline, the expectorated matter becomes thicker & more opake. Considerable stress has been laid on the appearance of the sputa as a diagnostic sign. Occasionally, the pectoral symptoms instead of diminishing at this stage, which is the regular course, become aggravated, & auscultation reveals all the signs of bronchitis & circumscribed pneumonia. This is the greatest danger of measles. Instead of bronchial & pulmonary inflammation, a diarrhea sets in; when moderate this may be considered favourable, but it is sometimes obstinate & troublesome.

Diversities

There are numerous diversities between those

mentioned. The following are worthy of notice. 1st The eruption is not unfrequently alleged on account of some irritation about the stomach bowels, or brain. Any thing that debilitates the system, such as excessive purgation, or any previous vice of constitution, may have the same effect. Under all the circumstances, we should seek for the eruption as a favourable sign. Any thing that will retard it, or cause it to recede after it has appeared, renders the case more unfavourable. Not unfrequently pains in the bowels, diarrhea, dyspnoea, coma, & convulsions follow recession. Sometimes the rash returns ~~again~~ spontaneously with the relief of alarming symptoms. Though the retrocession here alluded to must not be confounded with the early & favourable disappearance of the rash, which sometimes occurs in slight cases.

2d Some think that rubeolus fever, may occur without an eruption, while others think

it is difficult to prove it. It is certain that several individuals of the same family may have the fever at the same time with precisely the same symptoms, course & duration, with the exception of the rash. The inference is at least plausible, that the affections have their origine in the same specific cause.

3. Another affection frequently seen during rubeolas epidemics, is an eruption, having all the characters of measles, without fever & catarrhal symptoms. This has been called Rubeola spuria, or Rubeola sine catarrho. The opinion of some writers is, that it will not protect the system against measles.

You very often see such eruptions on the skin ~~when~~, when any irritating substance is taken into the stomach, when measles are not prevalent.

May it not have a similar origin during the epidemics of that disease? But there ~~Then~~ is another affection which some

authors believe is more frequent & has a greater resemblance to the measles, it is a rubeolus eruption without catarrh. 4th Measles occasionally appear of a malignant character; Some cases of this kind may be combined with common measles, proceeding from a depraved state of constitution, or predisposed to a typhoid condition, or an accidental combination of some powerfully depressing cause, with the specific cause of Measles.

But frequently it is the result of some peculiarity in the epidemic influence; but this is very rare in this country.

The early stages may not differ much from those of simple measles; there is greater frequency & feebleness of pulse, more dyspnoea, & epigastric oppression, & a greater tendency to delirium, stupor, & other nervous disorders. Often prostration commences in the onset of the disease & only feble & imperfect signs of reaction take place. The eruption is very apt to be irregular; appearing & then disappearing.

The rash is often of a livid, purplish, or black colour; interspersed with petechiæ, & accompanied by a disposition to hemorrage. The abdominal, & cerebral symptoms, are those of malignant typhus; & affections of the chest, when they come on, assume a congestive character with febrile & inflammatory action & impairment of function.

When the patient survives the danger of syncope, coma or asphyxia, he may be carried off by the diarrhœa, or the bronchial disease that remains. This has been called Rubeola nigra or black measles from the darkness of the rash. Though the same may be said of the disease occuring in connexion with purpura & scurvy. Measles are liable to many complications, And the diseases that are likely to accompany them, are bronchitis, pneumonia & enteritis; opthalmia is common & sometimes severe. Perhaps the most dangerous complication is pseudo membranous inflammation

of the larynx. It is said to be most always fatal, but happily it rarely occurs. Rubeola is sometimes connected with scarlatina, adding to the danger of that disease, by directing the inflammation to the larynx. It is said to exist with smallpox too; though the affections seems to supersede each other, one being checked while the other runs its course; whilst being completed, the disease observed never set in, & run its course. Measles are said to have the power of relieving, or permanently displacing other diseases; especially cutaneous & nervous affections; among the latter, is hooping cough; though generally it is much more apt to leave disorders behind it. In some instances complete loss of voice & other unpleasant consequences, as inflammation of the eyelids; inflammation & suppuration of the ear, swelling of the cervical glands, boils on different parts of the body, & chronic diarrhea. Measles it is said favours the development of tubercle & scrofula in persons predisposed to them. . . .

Causes

It can scarcely be doubted, that there is a specific cause of measles, generated in the body of those who are affected with the disease & that it is capable of communicating a like affection to others through the atmosphere. Therefore it must be infectious. Some doubt whether the disease can be communicated by inoculation. A great many experiments have been made, some were successful & others were not. It is asserted that the disease has been imparted by introducing blood taken from the eruptive spots, into the skin of healthy individuals. Some think this unsatisfactory, because the experiments were made during an epidemic; but there have been so many successful experiments that those who do not advocate the affirmative of the proposition should yield the point. Though capable of being propagated by contagion, measles may be more prevalent at one time than at another; this is probably, owing to some peculiar epidemic influence.

Whether this influence is capable of pro-
-ducing the disease by itself; or of rendering
persons more susceptible of infection is uncer-
-tain. Cold weather appears favourable to the
disease, as it occurs more frequently in winter;
though it may prevail in any season of the year.
~~No age is exempt from it~~; It may attack
persons at any age; even the fetus in utero is
not exempt from it. It attacks children
more frequently than old persons, one reason
is, that adults are probably not so susceptible as the
young; though a much better reason is, that
nearly all have it when young. The susceptibility
to measles is so strong, that there are very
few who escape them. As a general rule the
susceptibility is destroyed by a single attack;
persons rarely have them a second time.
Measles resembles most other infectious diseases
in this respect. The disease generally devel-
-ops itself in about a week after exposure
to the disease; sometimes earlier at others later.

There have been cases in which the disease did not appear for two or three weeks after exposure.

Diagnosis

Rubeola in its early stage may be mistaken for catarrhal fever, though some think they may be distinguished by the hard dry loud cough, though there is always some doubt until the rash makes its appearance.

Smallpox, roseola & scarlatina, may be confounded with measles when the eruption first makes its appearance, though the subsidence of fever which not unfrequently occurs about this time in the latter affection is enough to distinguish it from smallpox. But there is more difficulty of diagnosis when the fever persists; in measles however the rash does not project as much, nor does it become circulated & umbilicated as it does in smallpox. It may be distinguished from scarlet fever by the appearance of the rash on the second instead of the fourth day, & from scarlet fever & roseola by the presence of catarrhal symptoms)

but when these symptoms are absent in measles the diseases may be confounded in their early stage. ——————— Prognosis

In ordinary cases the prognosis is not always favourable. The greatest danger to be apprehended is bronchial & pneumonary inflammation & these are perhaps to be more dreaded after the disease begins to decline. When pseudo membranous inflammation occurs & especially if it is extensive a fatal result may be anticipated. When the measles assumes a malignant form it is very dangerous. Sometimes the patient is carried off by disease of the bowels or brain. It is much more dangerous in the old than the young & more so in cold than in warm weather, & is aggravated by pregnancy & lactation, & the puerperal state. If it comes on in the advanced stages of other diseases, it is very apt to carry the patient off. Among the unfavourable signs, may be enumerated, severity & continuance of fever, postponement of the eruption, the disappearance of the rash

unsteady, great prostration, or internal irritation,
dyspnoea, or other signs of pulmonary inflammation,
delerium, coma, restlessness, continuance of fever
after the eruption disappears; weak pulse &
tenderness of the trunk; petechiæ & passive hemor-
rage are evidences of malignancy.

Treatment

In mild cases, nothing more is necessary than
to keep the patient on a low diet, attend to
the bowels, & prevent exposure to cold & wet.
It should be borne in mind that measles
will not bear exposure to cold as scarlatina
& smallpox will; great care should be observed
in this respect, or the bronchial & pulmonary
inflammation which is likely to follow will be
greatly aggravated. On the other hand the room
should not be kept too warm nor should the
patient be oppressed with bed clothing; he
should be kept comfortably warm; his feelings
being the guide in all cases. Children
require more attention than grown persons

because they are apt to throw the cover-
-ing off. And when the air of the chamber
is cool they must be watched night & day.
When there is need for treatment, saline
laxatives; demulcent drinks, such as flax-
-seed tea, a solution of gum arabic, infusion
of slippery elm, or a decoction of saccharine
fruits may be given, to which you may
add small quantities of antimonial wine.
When the patient has a very hot dry
skin the nitrat mixture or effervescing
draught may be administered. Blood
may be taken pretty freely when signs
of acute bronchial, pneumonic, or
laryngeal inflammation is ~~[illegible]~~
threatning, or should convulsions
with stupor supervene. No more blood
should be taken than to guard against
the above symptoms; because excessive
bleeding sometimes retards the eruption,
& causes its recession when out.

Cups & Leaches may sometimes be used & they are generally prepared to the Lancet, when you are in doubt as to the pro=priety of depletion. It is scarcely ever necessary to use the Lancet in children, when Leaches can be procured. In the early stages of such cases as require depletion an emitic of ipecac or tartar may be given, followed by a purgative dose of calomel; after which, the vin ipecac or the syrup of ipecac in small frequent & repeated doses will generally relieve the catarrhal symp=toms. The warm bath & warm fomentations may be had recourse to, with the view to aid the general treatment; but especially is the bath advisable when the eruption is tardy in appearing, or when it has receded too early. Opiates are not generally good in the early stage; but when there is much cough they may be given in conjunction with expectorants. When there is

much inflammation about the eyelids the
mucilage of sassafras may be advantageously
employed & it may also be used as a collyrium
in inflammation of the conjunctiva.
In the latter stages of the disease, when
the eruption is on the decline, if the cough
is troublesome opiates & expectorants, even as
antimony squills & senega are imperatively
demanded. If a fresh attack of bronchitis
or pneumonia supervene, it must be met
early with bleeding blistering & antimonials.
The loss of blood will subdue inflammation
better at this stage, than during the erup=
=tive fever, & the patient will bear it as
well. Should all these means fail recour
=se must be had to calomel with ipecac &
opium. The recession & retardation
require attention. If no unpleasant
symptoms occur it is better to leave the
case to nature; but when you have
signs of intestinal inflammation, or

depression of the vital powers, prompt treatment is necessary; & the principal object is, to bring the eruption to the surface. The best means for this is the hot water or vapour bath. If it is not convenient to adminis=ister it the hot & stimulating pediluvia may be used instead, together with warm drinks, such as balm & chamomile tea. If there is any gastro intestinal or nervous irritation, without stupor or bronchial disease, dovers powder may be given. Blood should be taken from the arm, when you have any signs of inflammation of the internal organs. In cases where there is no nausea, an emetic may be given with great benefit. When the system is debilitated from loss of blood, a typhoid tendency or other causes, warm camphy, & preparations of ether, or ammonia should be administered, while sinapisms stimulating frictions & artificial heat should be applied.

When children have convulsions in the first stage, often nothing more is necessary than a hot pediluvium or warm bath, sinapisms to the limbs; & if the bowels are constipated, an enema; it often subsides spontaneously, but when persistent with stupor, blood may be taken from the arm or temples; & cold applications made to the head & a dose of calomel exhibited. Sometimes an emeta of ipecac may be employed with great benefit under these circumstances. The practitioner should always try to diseriminate, whether the affection arises from irritation of the bowels or gums in dentition. And always in such cases, the treatment must be directed to the seat of disease. Caution should be observed in the abstraction of blood in such cases. In the advanced stage of the disease when convulsions occur, it is most always from some nervous disorder; & if asafoetida, camphor mixed or

opium is given, it will prove of more advantage than expulsion; but the practitioner must be governed by the symptoms of the case. Malignant measles should be treated like other typhoid diseases; with tonics, & stimulants, & the judicious use of lancatives; when attended with inflammation, local depletion, blisters & opium with calomel may be resorted to. The diet should be strictly antiphlogistic, When fever exists it should consist of farinaceous liquids, but when evidences of a typhoid condition prevail animal broths should be allowed. During convalescence the patient should be guarded against cold, & in winter should not be allowed to go out of the house, until desquamation has been for several days completed & the cutaneous symptoms have disappeared.

An
Inaugural Dissertation
on
Peritonitis.
Submitted to the Examination
of the
Provost, Regents, & Faculty of Physic,
Of the
University of Maryland,
For the Degree
Of
Doctor of Medicine,
By
William Haslett Clendinen
Of
Baltimore, Maryland.
February A.D.
1850.

To

Nathan R. Smith M.D.

Professor of Surgery

In the University of Maryland;

The able, & enlightened Promoter

Of Medical Science;

To whose skill, ingenuity, & liberality,

Surgery is indebted

For some of its Noblest Inventions;

And the Profession, for many

Improvements, & Practical Suggestions;

Whose Success as a Lecturer, & Practitioner,

Has been such;

"That when He dies, he'll leave a lofty name,

A light, a landmark, on the cliffs of fame."

With admiration of his Talents; but greater respect

For their application, & with unfeigned thanks

For repeated acts of Friendship received

At his hand, this Thesis, is

Most respectfully

Dedicated.

Peritonitis.

This Term, (derived from the Greek περιτείνω, to invest or surround, or less remotely from the Latin Peritoneum) is now, universally used to designate an inflamed condition of the serous membrane, that invests the abdominal parietes, and viscera.

It is generally divided into acute and chronic; also, into puerperal, Erysipelatous &c. In the following pages, I shall speak of the acute and chronic forms, simply, as they occur in the different periods of life.

Acute Peritonitis in the Infant.

This disease may attack the infant in intra-uterine life; but here the exciting causes are difficult to ascertain; It may possibly be transmitted from the mother to the child; or it may proceed from an internal strangulation of the intestines: of which, MM. Ducis & Legoues have seen examples.

That this does occur, has been proved by the Post Mortem examinations of M. Billard, who found a few hours after birth, effusions, solid adhesions between the intestines, & false membranes in the abdomen; effects which must have been produced during the abode of the infant in utero.

M. Billard has detailed five cases in which the above

appearances were discovered a few hours after birth.

In one case, the infant was greatly emaciated & pale, & old, & solid adhesions were found in the abdomen, indicating that the disease had existed for some time prior to the birth of the child; & had probably become chronic, before it terminated fatally.

In the four other cases, the infant presented nothing unusual in external appearances.

The causes that excite peritonitis during lactation are not very discernable; They are probably those that operate in after years. Infants are exposed to the same impressions from external agents, & their organs are at least susceptible of morbid actions.

Symptoms.

Pain is a prominent symptom, and is

greatly aggravated by pressure - the abdomen is distended, & this causes the infant to suffer from difficult respiration, in consequence of the pressure of the flatus up against the diaphragm - the countenance exhibits distress, the features are contracted, & the little patient cries almost incessantly; Vomiting is common - the bowels are generally constipated, - there is great restlessness, with general debility - a hot & dry skin, & a frequent, small, & hard pulse - . - If these are prolonged into the chronic stage, the child becomes exhausted & dies.

There is a disease to which infants are subject, which is liable to be mistaken for this - namely Infantile Enteritis. In this, there is pain over the abdomen which is increased by pressure, as in peritonitis, but the tongue is different, - it is red along the edges & coated with fur

throug which the papilla are seen pro-
jecting. In peritonitis the tongue is gener-
ally clean. In Infantile Enteritis
the bowels are generally loose - The reverse
is true in peritonitis. The latter is not
so frequent in infants as Enteritis, & not
so likely to be produced by irregularities
in diet & by other injurious agents to
which children are liable

It may be distinguished from Pleu-
ritis by the sonorousness of the chest;
From Colic by the remittency of the pain in
the latter affection, & by its ceasing on the
expulsion of gas. The Post Mortem
appearances do not differ from those in
the Adult, of which I shall hereafter speak.

Children of Scrofulous
diathesis are subject to a chronic form
of peritonitis, which requires distinct no-
tice. This is characterized by great tender-
ness over the abdomen with acute pain

occurring in paroxysms which appear at first, only twice a day, but afterwards more frequently. The pain is limited at first, but gradually spreads over the whole abdomen, which in the early stage becomes tumid, tympanitic, & tense; but afterwards subsides; - The pulse is usually about 100 with some strength & fullness; - The tongue is variable; the appetite irregular, but generally good, & frequently voracious; - There is also some thirst; - The bowels are generally open - stools large; & the excrementitious matter presents a peculiar appearance, being of a whitish brown color of the consistence of pudding.

The bowels may continue in this state for one or two months with progressive emaciation, until diarrhaa attended with petechia puts a period to the life of the child. The head seldom suffers, but cough & dyspnaa occa-

sionally attend. The usual duration of the disease is from four to five months, but the child is not generally confined to the bed till the last month.

Dissection exhibits the messentery, bowels, & the peritoneum lining the parieties, united together in one thick mass - the peritoneum thickened & containing large masses of scrofulous matter - with perforations of the mucous membranes.

The causes of this disease are unknown, & it generally terminates fatally.

Treatment.

In the first place leeches should be applied to the abdomen; Afterwards mild purgatives, alteratives, tonics, chalybeates, & absorbents may be exhibited. Laudanum affords the only relief from pain.

Acute Peritonitis in the adult.

The causes which predispose to peri-

tonitis in mature years are involved in some obscurity. Probably they are identical with those which produce other inflamations. It is more common in women than in men - in adult life, than at any other period - in plethoric, than in weakly constitutions - & in the cold season of the year. The exciting causes may be arranged into three classes, the Mechanical, the Chemical, & the Vital.

The Mechanical include all injuries inflicted on the abdomen by blows, falls, or compression; pressure of a gravid uterus, extra-uterine conceptions, enlarged ovaries, & morbid growths in the abdomen. Under the same head, may be included, all wounds of the peritoneum, whether by accident, or Surgical operations, or strangulations, produced by hernial protrusions, or invagination of a portion of the intestines &c &c.

The Chemical causes include all extravasations into the cavity of the peritoneum not quickly absorbed; as bile blood, urine, chyle or fæces.

The Vital causes, comprehend all aberrations of healthy actions, as the transmission of morbid action from an affected part to the Peritoneum; & also those, where the functions of the system are interrupted; as suppression of the perspiration, catamenia, & retention of the Lochia. The remote causes arise from the operation of cold, moisture, or both applied to the surface; or from drinking cold water while the body is in a heated state). Metastasis may be ranked among exciting causes. The retrocession of rheumatic, arthritic, erysipelatous inflamations, is often quickly followed by peritonitis.

Extension of inflamation from

a contiguous texture or organ to the peritoneum is a frequent cause of this affection; Thus, when the gastro-intestinal mucous membranes is inflamed, the inflamation may extend itself to the peritoneum; The same may take place when the Uterus or any other of the abdominal viscera are similarly affected; or, the two diseases may exist together.

Symptoms of Acute Peritonitis.

It generally commences with lassitude, pains in the limbs, & chilliness; then a reaction takes place, & the patient complains of headache, weight in the epigastrium, pain in the abdomen, at first, confined to a small space, & gradually extending over the whole surface.

The pain is acute & constant; sometimes fixed, & sometimes wandering from place to place. The pulse is frequent, & hard,

or, small & quick; the tongue is white & moist, the edge & raphe, being sometimes very red. Nausea & vomiting generally occur in the early stage, & the face is usually pallid, with a peculiar sharpness of features; - The bowels are constipated, & are moved with difficulty; Sometimes, however they are in a relaxed condition.

Constant wakefulness, prevails throughout the whole course of the disease, but delirium is rare, except towards its termination. The patient lies on his back with his knees elevated, & his shoulders raised; Inspiration is very laborious; Suppression of urine is common, & sometimes the patient is jaundiced from the inflamation being principally seated over the liver.

This disease is generally very rapid in its course.

Acute Peritonitis may terminate by resolution, effusion, gangrene, or, it may assume the chronic form.

Resolution may take place between the sixth & the twentieth day. It is indicated by the cessation of the inflamatory symptoms, such as pain, fever &c - & by the organs assuming their natural functions; by the patient's being able to turn on his side; - breathing being less difficult, & pressure upon the abdomen being borne with less inconvenience.

Sometimes there is a critical evacuation, such as diarrhea, abundant flow of urine, & copious perspiration. The pulse becomes soft & the patient obtains refreshing sleep.

Effusion generally takes place in fatal cases. It may consist of pus, or serum - & in some rare cases

blood or these may exist together.

The symptoms denoting effusion are, softness of the pulse, coldness of the extremities & irregular chills; & a feeling of weight in the hypogastric region.

Its existence may be ascertained by percussion, but it is difficult to detect it at first, on account of the smallness of the quantity effused & it is only to be resorted to, in the advanced stage of the disease.

When pus & lymph are effused, it is doubtful whether it is ever absorbed, & such combinations, generally, terminate fatally.

Mr. Gase however, has seen patients recover, in whom the purulent matter, escaped through the umbilicus; & Dr. Stokes has seen ascites consequent on peritonitis cured by the aid of

medicine.

Gangrene is indicated by sudden & entire cessation of pain - smallness & frequency of the pulse - which becomes intermittent; - great prostration of strength; Hippocratic countenance & speedy death. Dr. Abercrombie considers this termination rare; & in Post Mortem examinations it is seldom found.

When acute peritonitis does not prove fatal in fifteen or twenty days, it usually passes into the chronic form. It may however, continue acute a much longer time, - even thirty or forty days; & then prove fatal.

Diagnosis.

In some cases it is extremely difficult to distinguish peritonitis from other diseases affecting the viscera of the abdomen: also from Neuralgia

& rheumatic pains affecting the muscles of the abdomen &c.)

Colic, the passage of calculi along the ureters & biliary ducts), have been said by some writers to be liable to be mistaken for peritonitis).

In Gastritis the pain is confined to the region of the stomach; & vomiting is more urgent, & more easily excited by drinks & food; Thirst is more intense, & desire for cold drinks stronger.) The tongue in gastritis varies; but when it presents a thick white coat in the centre, and intense redness of the tip; it will assist in the diagnosis, as this appearance is not met with in Peritonitis).)

It is more difficult to discriminate it from Enteritis.) Some practitioners, & among them Dr. Cullen, think it absolutely impossible.)

The most important diagnosis between them, is, the difference of sensibility on pressure over the abdomen.

In peritonitis, pain is elicited by the least pressure; whereas, the same would produce but slight inconvenience in Enteritis. The action of the diaphragm in full inspiration, or coughing, does not produce such intense suffering in the latter, as in the former.

The pain is of a more acute character in peritonitis, & is more frequently accompanied by constipation. Enteritis presents some peculiarities, according as it affects different parts of the intestinal canal, the presence or absence of which will assist us in our diagnosis. If the duodenum is inflamed, pain in the region of that viscus & occasionally jaundice, are present.

In inflamation of the large in-

testines there is generally diarrhea, or dysentery, but neither of these symptoms is present in peritonitis; When however, the jejunum or illium is inflamed, it is more difficult to make out the distinction, because we have both pain & constipation; though the pain is not so severe, & is principally in the region those intestines occupy.

Rheumatism, affecting the abdominal muscles, may sometimes be mistaken for peritonitis. It presents the same pain in motion & on pressure; but it is generally felt at the origin & insertion of the muscles; thence shooting to the Spine of the Illeum.

The existence of this symptom, with absence of the other predominant symptoms of peritonitis, such as vomiting or constipation & fever, will guide us in our diagnosis.

Hysteria frequently simulates peritonitis, & it requires nice judgment to distinguish the one, from the other.

By watching the progress of the disease however, & obtaining an accurate history of the case, we may be able to make a correct diagnosis.

In hysteria the tenderness over the abdomen, indicates inflamatory action, beyond what the pulse, or the tongue, would authorize us to infer. The respiration is quick & less laborious, than in peritonitis.

A sudden subsidence of the symptoms, & their sudden return; a shifting of the pain, & sometimes, the decided intervention of hysteric symptoms, & the frequent accompaniment of some mental cause, or of irritation of the uterus itself, will enable us to distinguish the one from the other.

Colic may be distinguished from peritonitis by the absence of fever & also by that of pain when pressure is applied; & by the suddenness of the attack. There are other affections, which have some resemblance to peritonitis, but it is useless to enter into a detail of them since the principal ones have been named.

Prognosis.

This disease is always attended with great danger; - but if active treatment is early employed a cure may generally be effected; especially if the patient be young or not far advanced in years. Abatement of the pain - endurance of pressure - a soft & moderately full, & not very frequent pulse - ability to turn in bed - warm

skin - free evacuations of faces and urine, and good refreshing sleep, all indicate a favorable termination.

In advanced age, debilitated constitutions, or when arising from perforations of the stomach or intestines, or rupture of the viscera of the abdomen - from surgical operations or wounds, & from external causes the prognosis is unfavorable.

Complications.

The fever which accompanies peritonitis may present either an inflamatory, typhoid, or gastric type.

An inflamatory type is mostly met with, in persons of a robust, and plethoric habit; the typhoid in those of a debilitated state, and the gastric whenever the stom-

ach and intestinal mucous membrane, are in a state of inflamation. The symptomatic fever will also be much modified by the constitution of the season.

Sometimes, as M. Andral observes, it will be complicated with intermittent fever, disappearing during the interval, and returning at each paroxysm; - and in some instances it assumes the tertian or quartan type; as related by Robert Jamson.

But these cases are rare; - It is most frequently, with affections of the abdominal viscera, that it is found complicated, especially, of the stomach and intestines; the inflamation spreading from the peritoneum to the neighboring viscera, or first attacking some one of these, & then extending to the peritoneum.

"When there is a complication with some of the neighboring organs, the symptoms will vary; for instance, if with the liver, the patient may become jaundiced, with yellow coating of the tongue, and discharge of bile from the stomach and intestines, which state, is denominated by Chomel; "bilious peritonitis". And M. Broussais observes, that the brain may suffer from the acute pain the patient experiences, and that, in the latter stage of the disease, the coma, convulsions and delirium, are the effect of disease of the brain itself.

"There may be some thoracic complications in which the cough, dyspnœa, and pain in the chest, are the result of inflamation of the pleura.

This is not uncommon.

In two hundred and forty cases of peritonitis treated by M. Ducis, he found on Post Mortem examination, forty cases, in which the pleura was inflamed.

It is very rare to find the parenchyma of the lungs affected; or the pericardium.

Other complications do occasionally exist, but the principal ones have been stated and therefore it is inexpedient to enter into further detail.

Autopsic Phenomena.

The peritoneum will generally be found to be reddened, & thickened. There will be false membranes, collections of fluid, sometimes turbid, or whey like, & sometimes limpid & reddish, but very seldom bloody.

Adhesions between the intestines, gangrenous spots, and reddish flakes adhering to the peritoneum are common.

The dissections of Broussais, Abercrombie, and others, show that the peritoneum investing the stomach, intestines, liver &c. may be inflamed, and even gangrenous, whilst the structures of those organs themselves remain perfectly sound.

Treatment.

The general principles in the treatment of this disease, are the same, with some modification, as in other internal affections. I shall speak first of its treatment, as it occurs in infants, & afterwards as it occurs in the adult. Treatment in infantile peritonitis. One all-important remedy is blood letting both general &

local, In infants under six months, it will be better to leech on the foot or hand, as the bleeding will be easier controled, than on the abdomen. In infants between six & twenty months, from two to four ounces of blood may be taken; and when over four years of age, six or eight ounces may be taken according as the case may require.

After bleeding, our attention should be directed to the bowels, and here, we may employ purgative medicines of moderate properties.

The best I believe, is small doses of Calomel combined with opium, if the stomach is irritable, followed by castor oil. Emollient enemata will generally be found to answer sufficiently well

The application of warm fomentations to the abdomen is of utmost importance and should be frequently repeated.

The warm bath has been used with advantage.

Some authors, recommend the application, of counter irritants to the surface of the abdomen; such as Spirits of Terpentine Sprinkled on warm flannel; which I think would answer very well; better no doubt than blisters, as they often produce injurious effects on infants.

The Child ought to be kept at the breast, as the sudden change of diet might produce serious results.

If the acute symptoms subside, and the patient continues to have a week pulse, abdominal tumefaction, hot skin

and dry tongue, we may judge that it has passed into the chronic stage; and then we should not keep the bowels too open; but we may occasionally apply a leech or two to the abdomen. The child's strength should be supported by animal broths, arrow root &c. The bowels should be regulated by calomel, according to circumstances, and general attention paid to the whole system by warm bath, counter irritation to the abdominal surface & the whole body by dry rubbing.

Treatment of Acute Peritonitis in the Adult.

Prompt and efficient bleeding in the commencement of the disease is the principal measure to be relied on; This should be followed by small bleedings,

as recommended by Dr. Abercrombie, to keep up its impression on the system.

From thirty to forty ounces drawn soon after the development of the disease will often subdue it so much as to secure a speedy removal of it. The benefit derived from depletion is confined chiefly to the first twenty four hours, during which time, the bleeding may be repeated, two, three, four, or more times, according to the violence of the inflamatory symptoms.

Leeching the abdomen is highly beneficial. After leeching light emollient poultices & warm fomentations should be applied. The addition of laudanum to the poultices is often highly salutary.

After bleeding we should administer an active cathartic, on account of the torpidity of the bowels, for this purpose a dose of Calomel should be given and followed by a dose of castor oil and spts. Terpentine, decidedly the best purgative in peritonitis.

After the general and local symptoms have been subdued by the means already mentioned; Opium in combination with Calomel used until slight ptyalism is produced, is a remedy of great efficiency. If vomiting be urgent the effervescing draught should be exhibited. Mild Cathartics may be used to keep the bowels moderately free.

Diet throughout the disease, & in convalescence should be of the simplest kind. If symptoms of debility ensue, wine & ammonia should be given; beef tea & quinine injected into the rectum.

An

Inaugural Dissertation

On Typhoid Fever,

Submitted to the examination

Of the provost Regents

and Faculty of Physic,

Of the

University of Maryland,

For the degree of Doct of Medicine

By

Joshua F. C. Fendall

Feby 1856

Gentlemen,

In conformity with the custom of the institution, which I have the honour to be a student, I make a feeble effort to write for your inspection a Thesis, and have selected for my subject, Typhoid Fever. Fever has, and must in future ages present an extensive, and fertile field for the investigation, and research of man, Yet after eliciting this interest, and intellect, it seems to have escaped a correct definition. Therefore without an attempt to define it, but know it to be a deviation from health, or an irregular, and unnatural condition of the vital organs, characterized by various symptoms, The causes that give rise to this disease, is unsettled, and uncertain, we cannot trace it to inflammation, nor can we detect the morbific agent, which I presume has insinuated itself into the blood, or

other fluids of the body, in such an insidious and injurious manner, as to diminish that active vitality on which inflamation seems to depend, Then in the absence of inflamation, and in the absence of those finer faculties by which alone we can take cognizance of this evanescent gas or fluid, we are compelled to allow it to remain for a while, unseen, and unknown, But no matter what it may be; or where it may be found, we can expect an acquaintance with its nature, only by an observation of those fixed and immutable laws which govern all matter, whether organized or in its previous and inorganic state, For under their influence we see the ultimate elements of the subject of disease, gathered from the surrounding inorganic world, and beautifully commingled, and breathed into molecule, Under the same influence we see it,

nourished, and developed with parental solicitude, as long as it is susceptible of such stimulating nourishment, The duration of which period, depends upon the perfection of its organization, as well as the predisposing circumstances, or morbific causes by which it is impressed, The pathology of this fever is various, and complicated, we may have the liver, the brain, or indeed all of the organs involved in this disease, or we may have many of them absent, they do not constitute the pathological anatomy of the disease, But we have other lesions, which are not accidental, but essential, they seem to be necessary to the disease, and always enter into its composition, This is the case with the elliptical plates of the small intestines, and the lymphatic glands of the mesentary, corresponding to these altered plates, The relative importance of the

several lesions, accidental, or essential,
is a question of controversy, though
we must presume that the essential and
constant lesions, are the most important
as for as identifying the specific disease,
But as it is probable that life is destroyed,
or the disease rendered dangerous, and
severe, by the developement of the
secondary alterations, rather than by the
extent and gravity of the essential —
It would seem impossible to determine
which exerts the most powerful
influence, upon the duration, and danger
of the disease, I shall however only
speak of those alterations which seem
to be the most constant, and those
which are essential to its presence,
The Spleen is almost ~~always~~ always
more, or less, altered, the most marked
change consists in its volume, in many
cases it is three or four times its natural

size. It is often diminished in consistancy, this softeneng is sometimes extream, so that the parenchyma of the organ is reduced almost to an inorganic mass. The color of the spleen is often changed from its healthy appearance, it is generally darker than natural of a deep bluish brown, and sometimes almost black —
The stomach is often altered the mucus membrane of the organ is generaly removed from a healthy condition.
The alterations to which it is subject, is various. The most common consists of change in its color, its consistancy, its thickness, and ulceration, these alterations may exist seperately or as happens most frequent ~~ly~~ two or more of them and found together. The most common change of color consists of redness which is of various shades, and occupying different portions of the stomach, and seems to be dependant

on different causes, Sometimes it is probably the result of inflamation, but in many cases there is sufficient evidence that such is not the case, Softening of the mucus membrane sometimes exists as a simple lesion, but frequently associated with a diminution of its natural thickness, this alteration either simple or complicated is found in all parts of the membrane, but it is oftenest confined to the cardiac extremity. In some cases it exists in seperate bands, in others it spreads over a continuous portion of the stomach, The thinning occasionally extends through the membrane resulting of course in its destruction, Ulceration of the mucus membrane is found present in a few instances, they are small in size superficial and not very numerous, There is another condition of the gastric mucus surface to which the name of

pamelonation has been applyed. This lesion consists of small elevations of the membrane circular or oval, in their form, and scattered thickly and in considerable number over different portions of the Stomach. This peculiar condition generally exists in connection with other alterations. In all cases of Typhoid Fever, we have lesions of the small intestines This lesion is peculiar, It is found in no other disease and generally extensive, constituting the characteristic and of course, the most interesting and important pathalogical element of this fever, we have in a majority of cases, The mucus membrane exclusive of the elliptical plates more or less changed in color. in many it is red. This redness is sometimes continuous, and extends through a large portion of the intestinal tract, at other times and more frequently

it exists in patches, occasionally the color is grayish This is the case when the disease has been protracted. The consistance of the membrane, like its color, is found in a moderate proportion of cases quite natural, oftener however it is diminished sometimes so much so, as to resemble a pulp spread over the subjacent tissue The invariable lesion found in the small intestines, to which allusion has been made, consists of alterations differing of course, in different cases, of the elliptical plates, or Peyers glands, the condition in which these bodies are found, varies with the duration of the disease, and the distance of the plates themselves from the ileo cæcal valve, and with the other circumstances, in connection with the disease, In a small proportion of cases consisting of those which terminate early, the elliptical plates together with

the subjacent cellular tissue, are merely increased in thickness with redness and softening. This increase of thickness is such that the edges of the plates project to a distance of from one to two lines above the surrounding mucous membrane. This lesion like all the others, is invariably found most advanced, and most strongly marked, at the lower extremity of the ileum, each successive plate, as we go upward along the intestinal tract, from the ileo cecal valve, is less, and less profoundly altered, till we arrive at those which are in a natural condition. The number of plates thus changed is various, sometimes as many as fifteen or twenty, and at others only one or two. We have also an alteration in the isolated follicles or Brunners glands, they are subject to the same changes as those of Peyer, and like them they are most numerous and most profoundly

altered in proportion to their proximity to the ileo cecal valve, The blood is also altered in this fever, we have a diminution of the natural proportion of its fibrin, which seems to be in proportion to the severity of the disease, The blood drawn from the veins rarely exhibits the buffy coat, and when present, it is generally soft, gelatinous, or infiltrated and of a grayish or greenish color, This change in the blood seems to be constantly present in this fever, But whether the poison first makes its impression on the blood or other newly formed, and sensitive fluids of the body, I will not inquire, But content myself, by recognizing the intamit connection between the solids and fluids, their mutual action, and reaction upon each other, The vessels and their contents seem to have a similar or rather identity of interest, and it matters but little, on which the morbific agent

makes its first impression, since there is so strict and uniform reciprocity kept up between the fluids and solids. If the impulse is first imparted to the solids the change they undergo, soon effect new relations among their fluid contents, and in a like manner, if the fluids are first thrown into disorder, the solids are very soon forced into a participation.

Symptoms. This is an essential or continued fever, because it is symptomatic of nothing which we can detect, and has a course to run peculiar to itself. There is a good deal of difference in the different cases of Typhoid Fever. It may come on suddenly as in a large majority of cases, it is slow and gradual. In many cases it is impossible for the patient to fix with any truth on the day when the fever commenced, and often he is unable to describe the feelings of his own indisposition

he feels a sensation of mental and bodily
langour, or an inability to accomplish
either mental or physical labour, He
has a slight chill or a sensation of chilling
alternating with heat, and to accompany
this a slight and dull pain in the head,
or in the back and limbs, with a general
feeling of soreness and fatigue, The appetite
is diminished or lossed, We have a moderate
thirst, with a dry or clammy condition of
the mouth, The expression of the countenance
becomes anxious and haggared, The eye
loses its usual animation, and the mind
becomes either indefferent or apprehensive,
We may have moderate diarrhea, which
depends more upon the quality, than the
quantity, or we may have an oppisite
condition of the bowels, We may have
a mucus or a bilious indigestion, In
this stage, the commencement of the fever,
the tounge is but slightly altered, It is

sharp at the tip, and covered with a slight fur, and not as moist as natural, or it may be covered with a yellowish coat, At other times, apperently under the same circumstances, it may be smooth, slightly red at the tip, and edges, The pulse is almost always more frequent than in health, and in other respects modified, the frequency of the pulse during the disease may be said to range between seventy and one hundred and forty, it is more frequent in females than males, and its frequency is usually in proportion to the severity of the disease, in mild cases the pulse maintains its softness and volume, in severer it is sharp, irregular, small and compressible, we often have a dry sonorous rhoncus over the chest, we have the respiration increased, and with this condition we most frequently have increased heat of the skin, which is variable

It may be moderate and uniformly diffused, or it may be high burning and unequally distributed, the head and trunk may be excessively hot, while the extremities are cold, or the extremities hot, and the head and body but moderately so.
We frequently have Epistaxes, if it exists to any extent without a predisposition, it is a grave symtom, It may occur at different stages of the disease, but most usually during the first stage, We have a characteristic eruption upon the skin, which consists in what has been called lenticular rose colored spots, on the abdomen, this is a common symtom in Typhoid Fever and rarely if ever seen in any other disease, these pimples are slightly elevated, not always sensible to the touch, of a bright read color, about the size of a pins head, they disappear on pressure, and readily return again when removed, Flatulent

distension of the abdomen, is a very common
symtom. It varies from a slight rigidity,
to extream distension, and have a gurgling
sound produced by pressure on the abdomen
especialey in the right iliac region over the
cecum., Later in the disease about the last
of the second, or third week, and sometimes
later, the nervous symtoms are increased,
and have great mental inability. The patient is
sometimes impatient and irritable, sometime
listless and indefferent, and sometimes timid
and apprehensive of immediate dainger,
and frequently have delerium, the expression
of the countenance is strongly marked,
it is dull and vacant, the eye heavy and
languid, and have dulness of hearing,
dizziness of vission, and ringing in the ears,
and have irregular, spasmodic contraction
or permenent rigidity of the muscles, most
usually those of the fingers and wrist, and
and often have spasmodic contraction

of the bladder, or its neck producing its
destension, the respiration which was
comparitively unaltered, becomes now irregular
and hissing, and have physical signs connected
with the thorax, consisting in a circumscribed
crepitous rhonchus, with other signs of
secondary complications of the chest, and
have as a common complication the bronchial
mucous membrane thickened, and otherwise
altered, especially those cases occuring
during the winter season, and often have
pneumonia, which is difficult to recognize,
we may hand it, without much pain or
opata, because of the nervous energy
becomes so far diminished as to benumb
the sensibility of the patient, we may also
have a passive congestion of the lungs,
and may have Erysipelas without much
redness, or swelling, we often have
Ulcers, Paralitics, and Eschars, or we may
have perforation of the intestins - This fever

is a grave disease, made so by its extreme susceptibility to dangerous and often fatal complications, Condition in life has but little influenced in this fever, neither has sex much influenced, But age seems to exert much, In the young, it is not so fatal neither are they so often the subject of new attack, as those from eighteen to thirty five, Treatment, - This disease is excited by a poison, which cannot be modified by any specific treatment. It has a course of its own, which it seems unwilling to relinquish, Then our object should not be so much to treat this fever, as to place the system in a position favourable to contend successfully with the poison present, as well as to resist, and meet the secondary complications, as they intrude themselves upon an injured system, By this judicious management, our learned and eloquent professor thinks, we may

modify the character of the disease, and in a large majority of cases, conduct it to a happy termination, In treating a case of disease we should act with decission and energy, But with a sense of our responsibility, and impressed with the belief that our treatment may accomplish much either for good or for evil, We should use every exertion to procure a large and well ventilated apartment, and compitant nurse for the comfort of our patient, Keep the room well ventilated by fire in cold and damp weather, and fresh air in warm and dry remove all useless articles of furniture from the room, and keep it silent, We should be particularly careful not to alarm our patient or permit them to be depressed by the despondeing and insinuating manners of others, If the pulse is full indicateing

c

congestion or inflamation, and the general condition of the patient will allow us, we bleed to relieve the congested condition of the capillaries, and take from twelve to fifteen ounces of blood, sometimes more and sometimes less, or we may apply local depletion, by cups or leaches, We should not bleed because we do not know the nature of the disease, or what better to do; It should not be done with the belief, that if a little blood will do no good, it can do no harm, But with the belief that it flows in a living stream, from an already depressed system, whose vital energy can best contend with the formidable foe That has invaded it, If we bleed it should be in the first stage of the fever, or we may under some circumstances, bleed in the second stage of the disease, In the first week, we give our patient very

little food, and give cooling drinks, a little barley water, a little lemon ade, and if agreeable to the patient, we sponge the body with cold water, or cologne and water, we may lay a fomentation over the abdomen, If we have a mucous or bilious indigestion, we treat it, we give a gentle emetic in the first, and a gentle dose of mercury in combination with.

Dipsia in the second, we must pay strict attention to the bowels, if we have a slight diarrhea, we give a gentle purgative to assist the opperations of nature, or on the other hand if we have a profuse diarrhoea, we give something to arrest it, give at little morphia, or ten or fifteen drops of black drop, or an enema of starch and laudanum, If the bowels should be disposed to costiveness, which is however rarely the case, we give a mild purgative,

such as rhubarb, blue mass, or magnesia, we must be carefull not to use gastric purgatives - we may give the carbonate of soda, or any of the non-purgative salts, as a diaphoretic or, they may act as a diuretic. In the second or third week, we generally use stimulants, such as barb of amonia; apply stimulating blisters to the extremities, we sometimes give quinine, or wine, or we may give Brandy or turpentine. The turpentine seems to be a valuable stimulating diuretic in this fever, but we should be very careful how we use any stimulant in this disease. The best indication for their use is the condition of the tounge, and the action of the heart. If the action of the heart, is feeble and slow, we stimulate, if its action, is frequent and full, we withhold them, when useing them. if the tounge become moist and clean - their use is indicated. If on the other

hand, the tongue should not improve, but assume a dryed and furred condition, we should withdraw them, If we have perforation of the intestins, we place the patient upon his back and let him have nothing to eat or drink, all we can do in such cases, is to administer large doses of Opii to keep his bowels quiet if possible, and give the nerves, an opportunity to unite, If we have Epistaxes to treat, we may use cold to the head and back of the neck, or saturate a piece of cotton with turpentine and introduce it in the nostrils, If we have hemerage from the intestins we give the acet of lead, or turpentine injections, and in addition to this, give a little laudanum, If we have deleriam, we apply leeches to the back of the neck, and cold to the head, we at the same time, apply warm applications to the legs and feet, In this stage of the diseased we have only to

depend upon the sustaining system, and prevent your patient from sinking from the many draineings which he is suffering we use laudanum to quiet the system, and tonics to sustain it, we use Brandy, Gruening, or wine, we give as an important drink, and tonic, Beef and chicken Tea, change the position of the patient often, to prevent sechars and if they should occur, we touch them with nitry of silver. If we have bronchites, we use Surp of Ipecac, or we may cup between the shoulders, and sometimes use blisters, If we have pneumonia, we cup and leech, we must examine the bladder and draw the urin off if necessary, The convalescence from this disease is slow, and we frequently have a relapse, we sometimes have paralyses of the lower extremities, but this subsides as the patient gains his usual health, If the patient

is predisposed to tubercular disease, the
often see an indication of it after this
fever, or we may have the pleasure
to observe a feeble constitution improved,
during convalescence, we use the vegetable
tonics, moderate exercise, and unstim-
=ulating diet, If required the saline
purgatives are recommended, because
of their mildness, and tendency to
allay febrile action -
Gentlemen, In concluding, allow me
to express my gratitude, for the many
advantages which I have received
from your Tuition, It is only by a
comparison of the most perfect with
other objects by which we are surrou-
=nded, that we are enabled to conceive
ideas, or arrive at just conclusions,
And our happiness depends, and must
progress, in proportion as the mind matures
that it may properly appreciate its own

conceptions. Of these objects then, can we
remain unmindful. It is not in
accordance with the primitive
constitution of mind, nature has
decreed otherwise, and we are
compelled to obey, we must be compara-
-tively, grateful, to the innocent, and placed
smiles of infancy, and childhood, and
the orator and phylosopher, who binds
us by his eloquence and genius, or leads
us, by his astute, and philosophic reasoning

An

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On

Typhoid Fever

Submitted

To the Examination

Of

The Provost Regents

And Faculty of Physic

Of the

University of Maryland

For the Degree

Of

Dr of Medicine

By

Edward S. Dorsey

Of

Maryland

A.D. 1850

Typhoid Fever

We have many different names by which this fever is called, sometimes bilious or gastric, also slow nervous fever, frequently entero mesenteric, follicular enteritis and enteritis. It is an acute, exanthematous disease, characterized by swelling and suppuration of the enteric follicles, as the post mortem examinations show us.

By fever, meteorism, gurgling tenderness in the left flank, rose spots and sudamina, restlessness and low delirium.

This disease is always dependant on animal poison of the same kind, as we always find it producing the same anatomical lesions. These changes

we find principally and first in the glands, of Peyer and Brunner.

We also have changes, in the lungs, heart, small intestines and stomach.

It is not certain whether we have the fever or the alterations in the glands first.

We find the alterations first appearing, in the last two or three feet of the ileum. There is however, no ulceration before the 9th day and the disease may run its entire course, without any ulceration or suppuration.

Or, a patient may have the worst form of the disease, with ulceration and perforation bringing on peritonitis, from which he may perish about the 9th or 12th day. The alteration is generally deepest about the ileo-caecal

valve. If the patient dies about the fifteenth day, the mesenteric glands are enlarged and changed in colour; if about the twentieth, we will have the alteration more marked; and if from the 25th to 30th, they will be found gradually resuming their size and colour.

But although, we sometimes have a fatal termination about the 12th day from perforation, we may have death resulting ~~from~~ without any ulceration.

We may meet with small ulcerations, all along the alimentary canal, with the exception of the stomach whose mucous coat is softened. We also find softening in the mucous coat of the large intestines.

There is alteration of the spleen.

It is enlarged, from the 5th to the 20th day, to twice or four times its size and altered in colour and consistence. The kidneys are sometimes softened in typhus, from alteration of nutrition. The bronchial tubes, are filled with a frothy mucous. The lungs are altered in texture and congested, with splenization of the lower lobes, as sort of hypostatic congestion. But this condition, is of course not peculiar to typhoid fever.

We know the heart pale, flabby and soft. The muscular system, seems to have lessened its tone and softened. There are a good many nervous symptoms, but the brain and spinal marrow is little altered. The blood is changed but not so much as in typhus

or yellow fever. The fibrin, is rather diminished and we have no buffy coat, or will it clot easily.

I shall now endeavour to give a description of an ordinary case. We may have, the disease appearing, without any premonition at all, but generally speaking the person about to be affected, will complain of loss of appetite, lassitude, coldness, slight colicky pains and a general feeling of indisposition, for two or three days before the regular onset of the disease. We then have him taken with one or more decided chills, headache, generally severe, great weakness, bleeding from the nose, colicky pains with a little diarrhea, or the bowels may be constipated.

If there is diarrhea, it should be attended to, as we may have only one stool a day, and still a diarrhea, from its consistence.

The face gives evidence of great prostration, the sensibilities are blunted, there is slight delirium or agitation, insomnolence, dorsal decubitus, swimming in the head, ringing in the ears, obtuseness of hearing and disturbance of the digestive organs. There is a bitter taste in the mouth.

The abdomen, is tympanitic, with tenderness about the umbilicus and in the right iliac region.

We find gurgling in the right flank, which is of great importance as a diagnostic sign.

The stools, are yellowish or brownish, but nearly natural in

colour. Towards the end of the disease, we find pain in the left hypochondrium. The pulse is encreased in frequency but soft and compressible. It is also dicrotic which is very important as a diagnostic sign. There is sybilant and sonorous ronchus at the back of the lungs. We have dyspnea and blueness of the face, generally in proportion to this.

The typoid eruption, makes its appearance from the 7th to the 9th day, in the shape of rosy, lenticular spots, about the epigastric and umbilical regions in successive crops. The headache lasts from 24 to 48 hours.

During the second week, in the day time, there is greater muscular debility, greater deafness and

subsultus. At night, there is
increase of muscular strength,
with delirium and Coma Vigil.
The tongue, during the first week,
is marked in the centre, with a white
pasty fur and the edges red. In
the second week it becomes tremu-
-lous and more of a strawberry
colour, it is dry, sometimes there is
inability to protrude it, and some-
-times it is covered with a brown
paste. The lips are dry and
there is sordes. If there is less thirst
than before, it is a bad sign.
On the contrary, if the patient
continues thirsty, we generally
consider him doing well.
There is difficulty of swallowing
in the second week, also meteorismus, causing the diaphragm
to ascend, thereby increasing the

dyspnea. The bladder is distended.
Great tympanitis and involuntary
stools are unfavorable signs. The
colour of the urine is also to be
attended to. If it continues turbid
or muddy, very good, but if it becomes
clear, we may calculate the patient
is growing worse. The pulse encreases
in quickness and becomes more chordee.
If it gets very low it is an
unfavorable symptom. From
about the 15th to the 20th day a
miliary eruption appears about the
flexure of the joints, and sides of
the neck called sudamina.
In bad cases we have true
petechial spots like those in
purpura, and bed sores. Or blisters
or cups or any wound the patient
may have had may degenerate
into bed sores.

About the 3rd week, if the patient is to die, the symptoms become aggravated, or if to get well, they ameliorate. There is no critical discharge, or any critical day upon which this disease breaks up. In different districts, say malarious, for instance, there is predominance of one or more symptoms. The symptoms differ much from each other.

They may be inflammatory, bilious, mucous, ataxic or adynamic.

The inflammatory type presents the symptoms of inflammatory fever for the first weeks, after that it sinks into the typoid form. The bilious or gastric form, is met with in malarious districts, with symptoms of bilious indigestion, in conjunction with the typhoid. The mucous,

appears in persons who have been confined for sometime with catarrh, which will run soon into a very low form of typhoid. We have the adynamic form secondarily.

The ataxic may be primitive or secondary. We may have this disease so slightly as not to confine the person to his room, only suffering from headache, slight increase of pulse, loss of appetite, and a little diarrhea.

In malarious districts, it may simulate intermittent fever, this character, seldom lasting beyond the first week. This fever, interferes greatly, with the processes of nutrition and assimilation. The patient emaciates rapidly and greatly. We have the appetite returning suddenly, on the

breaking up, of the disease and it is very imperious.

There is oedema of the lower extremities, in convalescence as a sequele of this disease and paralasis or pain in these parts especialy in children. This may last for two or three months, but is never permanent.

There is loss of hair, insanity or idiocy, but the patient nearly always recovers his intellect entirely. The deafness clears up if there has been no suppuration from the ear. As a general rule, this disease never attacks the same person twice, but relapses are common from some indiscretion.

The duration is considerable, generally from fifteen to thirty days, or it may last longer.

If convalescence begin before the eighth day, the probability is, there's been a mistake in the diagnosis.

In regard to the peritoneal pain from perforation, it is more intense over the spot of perforation, which pain encreases on pressure. There is chilliness, coldness of the extremities, and suppression of the diarrhea.

Perforation is less common in children. The ratio of deaths from perforation, is about one out of every fourteen or fifteen fatal cases. When there is much hemorrhage from enteritis, it is a grave symptom, or if there is gastritis, as a complication it decreases, the chance of the patient.

This must be treated as in a healthy person, only not quite so actively. The enteritis also

demands treatment in its own right. We have in all typhoid cases more or less bronchitis; this is generally diffused. As this sometimes carrys off the patient it must be attended to. Pneumonia is a secondary complication in about one out of every six cases. This is generally obscure, as the sputa is not so much to be depended upon, and there is not so much pain on account of the low nervous state of the patient. Fully one half of those having Pneumonia as a complication perish. Erysipelas is also a secondary complication. Blisters, cups, or wounds of any kind may degenerate into it, or we may have it coming on without any abrasion of the cuticle. Nearly all die from this. It is almost

impossible to recover. There is also Otitis, especialy in children.
Parotitis is more common in adults. This is a grave symptom as suppuration generally takes place. If eschars come on early it is a bad sign. As to the diagnosis, there is no pathognomonic sign. The rose spots are the most so. There is diarrhea, generally four or five stools a day or the bowels may be constipated for five or six days. Epistaxis is an important symptom when we have had a chill. Eschars, meteorism, increase in the spleen and great depression of the nervous system are all diagnostic signs. The diagnosis is not very clear in the first week. In the second we may make it out by the continuance

of the disease or examinations of the blood during this stage may satisfy us. When we cannot find any evidence of secondary inflammation we go to typhoid by exclusion. The differential diagnosis is commonly easy. When allied with plethora this is generally a cause of ephemeral or inflammatory fever. This we treat in mild cases by mild antiphlogistic means - low diet and cooling drinks or if there is much excitement, general depletion or local bleeding, or if a discharge has been suppressed we may bleed. The prognosis is always grave. If the patient is from 20 to 40 years old, the mortality is about one in eight; over 40 more. The mortality is also greater in summer than winter

or in some seasons, than others.

All complications, decrease the chances of the patient.

Treatment. This consists in managing the disease. We must combat the complicating inflammations. There are many specific treatments, but they are all humbugs.

In regard to bleeding it may be practised with great care, in the first four or five days, when the disease comes on suddenly, with inflammatory symptoms, in a plethoric patient. But if you do not see the patient thus early, do not bleed if it can be possibly avoided, as we must husband the strength, knowing the disease to be long in duration.

In the first week, the diet should be very strict. We may give cold,

iced or warm emollient drinks, as the patient may prefer. Emollient poultices over the abdomen are good

At this time we may give a laxative, but never any irritating drastic purgatives. A good laxative is a little rhubarb and magnesia or a blue pill or two. We merely wish to clear out the intestines.

Or we may give an enema of flaxseed tea every day.

If there is too much diarrhea, substitute an enema of starch with a little laudanum. The gastric symptoms are to be attended to.

Exhibit some one of the neutral salts, these having the advantage of being a little refrigerant and diuretic. In the second week we must use stimulants if indicated. Carbonate of Ammonia, with serpentaria

and quinia or wine whey. Revulsives are also required. If there is delirium we may apply a blister to the back of the neck, only so far as to produce redness, as it may degenerate into bed sores. Tonics are also indicated now. Wine whey, quinia and brandy are very useful. Turpentine is especially useful, particularly as a stimulant diuretic. Let the patient have plenty of good fresh air and ice and acidulated drinks.

Detach the sordes and keep the mouth and tongue clean.

We must also take care of the bilious or mucous indigestion, which complicates the beginning.

If the diarrhea will not yield to the starch and laudanum injection, control it by black drop and acetate of lead. In perforation

give neither food or drink, let him
have perfect rest, on the back and
remove all weight from the
abdomen and give large doses of
opium so as almost to narcotise.
If there is obstinate epistaxis
plug up the nostrils. In hemorrhage
from the bowels give turpentine in
3ss doses with acetate of lead.
If there is meningeal inflammation
we must use revulsives. But if the
delirium does not depend on this, it
is best treated with opiates and tartar
emetic. Sometimes there is delirium
from debility, then by stimulants
and nutritious diet. When there
are ataxic symptoms use tonics,
stimulants and antispasmodics.
In the second week we may give
some nourishment, a tablespoonful of
beef tea two hours, or jelly or chicken

broth. The position of the patient is to be changed 8 or 10 times a day. Give syrup of ipecac for the bronchitis or dry cups. If there is pneumonia and strength enough to bear it, we may take a little blood. If he is too weak for this we must support the strength and let the pneumonia alone. The bladder is to be examined and if necessary the urine drawn off. When eschars form they are to be treated surgically. Convalescence is generally slow. Tonics are to be used with good nutritious diet.

Respectfully submitting these remarks, I am

Your obdt servant

R. L. Dorsey

An

Inaugural Dissertation

on

Enteric Fever,

Respectfully Submitted

to the

Provost, Regents & Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

Edwin Ebert

of

York Pennsylvania

1850

In comforming to a duty
imposed upon all candidates
fore graduation in our venerable
University; I propose to consider
as the subject of my Thesis the
common continued fever of our
country and which in the lang-
-uage of Dr Bartlett their is good
reason to think is more gener-
-ally and extensively prevalent
in various parts of the world
than the other distinct forms
of essential or idiopathic fever—
The character of its lesions,
and the nature of its effects
which we shall notice in the
progress of our remarks; have given
origin to a variety of titles all
of which bear the same ultimate
signification; Typhoid has been
used to denote the general effect

upon the system of producing great prostration with a tendency to the exhaustion of the powers of life whilst enteric the term which we prefer to use directs our thoughts to the intestinal canal as the location in which the principal lesion exists, Dothienen=
=teritis follicular enteritis and entro-mesenteric fever have been respectively deemed by writers most appropriate appellations; as referring to the pathology and its seat— Nervous fever is also a name by which it is known— In describing the mode of attack; a discrepancy exists among Authors for which we are at loss to account; for whilst we have many of the best observers concuring with Dr Nathan Smith (who is

conceded to have given a faith =
= ful discription of the disease as
occurring in New England under
the name of Typhus fever) in
telling us that it attacks in
such a gradual manner that
we hardly know on what day to
fix its commencement; we find
Chomel the eminent French
pathologist corroborating by
statistics, a statement that
most fraquently the invasion
is sudden and not preceded
by any precursory symptoms
but notwithstanding the
assertion of so distinguished a
man we would be disposed
from our personal observation to
the belief that its mode of access
is slow and insidious being
generally preceded by several

days with listlessness on the part of the patient who feeling badly is disinclined to any exertion of mind or body complaining of debility and soreness with headache he deserts his employment lounges about the house with no appetite for food and experiences chilly sensations varying from a slight degree of cold to a decided chill which may be repeated untill in company with the premonitory symptoms they disappear and give way to more permanent characteristics of fever thirst becomes more urgent, the heat of the skin increased, and the pulse accelerated, with perhaps some exacerbations towards the evening the muscular system gradually loses its strength untill

the patient is compelled to confine himself to bed upon which he lies supinely; with a variable degree of dulness of intellect; in mild cases the mind may be but slightly affected amounting only to carelessness concerning things around him or it may increase to profound stupor: and the wildest lunacy, muttering of indistinct words is the most usual form of delirium and almost always to be observed at some or some period of the attack restlessness buzzing in the ears (resulting sometimes in temporary deafness) vigilance subsultus tendinum and carphologia are among the nervous symptoms; all of which ar not constantly present pulness in the head we ascribe

in part, to a determination of
blood to the head inducing
epistaxis which is so usual a
symptom as to have been considered
as contributing much to assist
us in forming a diagnosis it
generally occours during the first
few days of the attack often not
untill a week has elapsed but
but may make its appearance
at any period and is occasionally
repeated several times, the quantity
of blood lost is exceedingly variable
sometimes not exceeding a few
drops and again so profusely
poured forth as to require the
tampon for its arrest; the patient
lies as we have said in a state of
apathy complaining of the head,
pains in the back and general
depression the pulse becomes

accelerated but in the majority
of cases does not exceed one
hundred pulsations in a minute
in nervous and excitable persons:
more particularly in women and
children it reaches in the earlie
stages 113 or 120 beyond this the
individual is considered in danger
proportionate with the frequency
of its beats: Diarrhea is almost
uniformly present from the
commencement and so different
is this condition of the bowels
from what is ascertained to be
the case in many fevers that
our suspicion is at once awakened
of some lesion to produce liquid
discharges from the intestines
which are most frequently con=
=stipated from the diminution
of secretion invariably attending

febrile symptoms Louis defining Diarrhea to be a watery evacuation; without regard to number—and says that he found it wanting in but three of the many cases which he examined should it not manifest itself before the administration of purgative medicine the bowels will then says Dr Wood be much more readily and abundantly acted upon than than in most other febrile diseases; the stools may vary from one a day up to 10 or 12 ore more they are of a yellowish appearance and seemingly healthy in every respect save in consistence; rarely they are dark and sometimes bloody; particularly in the latter stages of the disease when hemmorrhage

may occur prom the ulcerated
elliptical plates griping pains
are usualy attendant and proving
a source of suffering to the unfor-
tunate subject; Tympanity or
distension of the abdomen from
accumulation of gases in the intes-
=tines is a symptom constantly
present at some stage of the
fever according to Dr Wood it
does not usually become percep-
=tible untill about the seventh
day when it may exist in so
slight a degree as not to be
observable to the eye and only
to be appreciated by percussion
it may cause only a slight increase
of size in the abdomen or proceed
to inflate the intestines until the
diaphram is pressed upon and
respiration greatly embarresed;

the air is but rarely expelled per anus and seems not to be removed by the peristaltic action of the bowels; mingled with fluids in the caecum it gives rise to the gurgling sound, first described by Chomel and now always sought after by pressure in the right iliac regeon to add its weight to the testimony in favour of our diagnosis. The lenticular or rose coloured spots not appearing untill between the first and second weeks generally about the seventh day is regarded peculiar to typhoid fever should any doubt remain in the mind as to the diagnosis the sight of this eruption is conclusive and may be called a pathognomonic symptom. it is of the size of a pins head

presenting a bright red rose
color and slightly elevated above
the skin their favourite seat
is the abdomen where they can
be discovered by careful examination
sometimes they are sprinkled
numerously over the chest, neck,
extremities and back - a peculi-
arity which in connection with
what has been said of them, and
serving to distinguish from
petechia and other eruptions;
is that when pressed upon
they disappear to return simul-
taniously with its removal they
fade away and are reproduced
thus manifesting themselves in
successive crops; the duration of
the eruption is estimated by
some - to be from three to fifteen
days - Sudamina or small

vesicles also display themselves
on the upper part of the chest
about the neck and near the axilla
or groin during the course of the
fever – they consist of small elevations of the cuticle containing a
limpid fluid and may be felt by
the hand though not so distinct
to the eye unless viewed obliquely,
they are by no means so constant
as the lenticular spot and occur
much later being rarely observed
before the last of the second
week Dr Hale says that whenever
the skin is for a lenght of time
kept in a state of perspiration
sudamina will mak their appearance – the observations of Louis
and Chomel are opposed to
this opinion. The Tongue is an
organ from which we derive

much valuable information
with regard to the severity of the
attack, or its mitigation, at the
outset it is but little altered or
bearing only a slight whitish
coating; as the fever advances it
becomes clammy; is protruded
with difficulty and evinces a
tremulous motion when accom=
=plished; later except in mild
cases it reaives a brownish or dark
color and losing all moisture
remains dry and oftentimes
cracked and sore attended with
sordes upon the teeth and lips when
the patient begins to improve
the tongue commences to resume
its healthy appearance from the
tip and edges; sometimes it
deviates from this course throwing
off its coat in flakes. Should it

even then remain moist; we are justified in considering it a good indication of recovery but not unfrequently it recovers the brown incrustation giving evidence thereby of a return to the same dangerous condition. The pectoral symptoms are cough and the dry sonorous and sibilant rales; the first is slight and indeed so trivial as to escape attention; it is attended by a slight expectoration of tenacious mucous; the ronchi may be heard early in the disease and diffused generally over the chest; bearing but little relation with the danger which accompanies its extensive existance when not arising as a complication of enteric fever it should however receive the careful consideration of the physician last

it run into pneumonia a most
fearful accompaniment of the
disease under consideration; from
stupor and consequent diminution
of sensibility the patient becomes
unconcious of the instinctive call
of nature to evacuate the bladder
the urine accumulates; distension
follows and the muscular fibre
losing its contractility renders it
impossible for the contents to be
discharged without mechanical
assistance stillicidium or the
flow of water drop by drop usually
takes place and may give rise
to the impression of inability to
retain; whereas the reverse is the
fact if such a condition of things
is allowed the absorption of urine
ensues; which circulating in the
blood comes to exert a baneful

influence upon the brain; by increas-
=ing the stupor and producing a
depression which will of itself cause
death should the bladder not be
ruptured this then is a circumstance
requiring the vigilance of the prac-
=titoner and the use of the catheter.
The formation of bed sores from
pressure friction or counterirritents
on the integument: deprived in
part of its vitality and sensibility
is to be guarded against in the
latter stages— Anatomical lesions.
We come now to consider the
pathology of enteric fever which
is peculiar; the characteristic les-
=ions are to be found in the small
intestines and are principally
confined to the lower part of
that canal near to the junction
of the ileum with the cecum

we allude to the changes which take place in the elipsical plates or glandes of Peyer: they are most numerous about the termination of the small intestine and are situated in that part of its calibre opposite the attachment of the mesentery; opportunity has not been afforded for their examination before the sixth day after that period they have been invariable observed to be thickend elevated from a line to three or four lines above the surrounding mucous membrane and varying in hue from a pinkish to a deep red colour later in the disease we will notice as we advance from above downward that ulcerations of these elipsical plates have taken place in

number and extent proportionate
with the proximity to the ileo cecal
valve in some a single ulcer will
be seen eating its way into the
substance again two or three
until at lenght whole patches
are seen to consist of ulcerations
they are generally oval or round;
but not unfrequently their edges
are jagged and irregular they do
not confine themselves to the
mucous tissue but penetrating
the muscular coat may contin-
-ue until the peritoneal covering
is perforated and the contents
of the gut discharged into the
abdominal cavity these elevated
elliptical plates are of two kinds
the one softened and prone
to ulceration the other hard
containing a matter of the

consistence of tubercle they may undergo resolution and are much less liable to ulcerate but should they proceed to that stage they first attain a softer consistence dissections have proved that ulcerations are not necessarily fatal cicatrices have been frequently discovered and others in the progress of restoration the mucous membrane newly formed is at first more glossy and smoth but ultimately cannot be distinguished from such as had not undergone a change Perforations alike with the great number and extent of ulcers are most frequent in the region of the union of the smaller with the large intestine the glandula solitariae of the large

intestines are affected in a similar manner though not so constantly; the mesenteric glands are greatly swollen hardened and usually red those most diseased correspond with the elliptical plates which have undergone the greatest alteration they sometimes suppurate but rarely form an abscess — In the large intestines the mucous membrane in some places is found reddened and the solitary glands thickened and ulcerated. The Stomach is but little affected: its internal coat in common with that of the duodenum may be of an unnatural reddish appearance but apart from that; little change is perceptible Louis records cases of ulceration

in the pharynx and Oesophagus
also softning of the meninges of
the brain but these lesions are
not uniform and barely deserve
mentioning. The spleen is almost
always very much enlarged, greatly
engorged with blood and so diminish-
-ished in consistence as to be easily
broken up by the finger which
may be passed in every direction
through its substance its dark
colour and soft consistence have
given rise to a comparison with
blackberry jam. The Liver is also
sometimes softened and the seat
of other changes but rarely so:
indeed there is not an organ
in the body but what has been
more or less diseased at some
stage of the fever. The blood
coagulates when drawn and

remains healthy save that the fibrin diminished in some malignant cases it has refused to coagulate firmly. The causes of Enteric fever are obscure and have given rise to much dispute among writers in this and other countries. Age is considered to be a predisposing cause; at best it has been observed by all that though children under the age of ten are not exempt yet it does not generally occur before the person has reached his fifteenth year between which period and thirty by far the greatest number are attacked; indeed we might say that cases occurring without these limits are rather to be cosidered as exceptions; from this fact; age has been classed

among the causes. Such as believe in the contagion of the disease account for its rare appearance after the age specified by asserting that most of those exposed have caught the fever in their youth and this protected them from a second attack; and that such as do not contract it in after life have escaped; as those do who have been fortunate enough to live a long life free from scarlatina and other undoubted contagious maladies. Dr Nathan Smith and Mr Gendrom have adduced instances strongly indeed illustrative of its contagiousness and firmly advocate it as one cause of propagation whereas Louis, Chomel, Andral with many others among them

Dr Wood say that they have
no reason to regard it contagious.
It is an established fact that
persons going from the Country
to reside in large cities are much
more susceptible than the older
residents. Diagnosis. In determining
the diagnosis the physician
should be cautious not to pro-
nounce decidedly until after the
first three or four days when
the disease will have developed
symptoms more reliable upon
which to base his opinion.
It may be confounded with
remittent fever and especially
in malarious districts where
almost all fevers partake mo-
re or less of the bilious nature.
It will often be not a little
puzzling to pronounce with

certainty the true type of the fever: by care and close observation he will be able to detect it by the remissions which occur in remittent / connected with the bilious vomiting / jaundiced hue of the conjunctiva and skin and the absence of tympanitis and disposition to diarrhoea Dr Wood tells us that it is sometimes difficult to distinguish between it and inflammation of the meninges of the brain, in enteric fever the diarrhoea tympanites epistaxis and rose coloured eruption will serve to guide by their presence and the want of some one or two of these leading marks conjoined with the proper symptoms of the inflammation would lead to the supicion of its existence.

In all treatises on the subject of our dissertation the attention of the writer has been particularly directed to the difference between it and the genuine Typhus which had been and continued to be considered as indentical until after the researches of our countrymen Dr Gerhard and Pennock of Philadelphia who succeeded in shewing the peculiarity of each both in respect to what is observed during life and after death. They demonstrated the symptoms duration treatment and pathology of Typhus to be widely different from the common continued fever there is no appreciable difference between their mode of access both being slow and insidious though sometimes

sudden and without premoni-
tion. Typhoid occurs in communities
endemically it is but seldom known
to produce an epidemic. Typhus
on the contrary almost always
prevails as an epidemic; instances
of which are recorded by British
writers in which it is shown
to have been the terror of the
people and almost as fatal
and alarming as the Asiatic
Cholera. In Typhus the heat of
the skin is so great as to impart
to the hand of a second person
an unpleasant sensation of
warmth and falls greatly below
the healthy standard as the
fever declines the odour of the
body is not likely to attract
the attention in Enteric until
the latter stage when it partakes

of a cadaverous character on the
contrary the strong ammoniacal
smell of a Typhus patient salutes
the practitioner on his entrance
into the sick chamber and
points to the diagnosis. The bowels
are also costive in Typhus requiring
active cathartics to remove their
contents. In Typhoid diarrhoe is
a prominant symptom. The base
and posterior parts of the lungs
are dull on percussion with a
feeble respiratory murmur the
dry sibilant and sonorous rales
have been spoken of as attending
occasionally. The face is more
suffused and the conjunctiva
injected in Typhus with a great
degree of stupor, morbid sensibility
and prostration of strength. In
Enteric the symptoms seldom

abate before the end of the week
and the majority of patients
do not recover before the twenty
first day. Typhus some times termi-
=nates by the seventh or fortieth
day. Accumulations of air in
the large intestines constituting
tympanites so common in Enteric
& absent in Typhus which attacks
all ages and the oldest residents
in common with the recent visitor
of our populous towns. Typhoid
prefers the stranger and selects
the young from fifteen to thirty
sparing the old. The eruption
is dissimilar and unlike it in
many respects. In Enteric it does
not come out before the 7 or 8
day when it appears first upon
the abdomen and chest as its
favourite location the spots

are well defined commonal
elevated and easily removed by
pressure in Typhus it appears
early is more abundant and not
so generally confined to the body
but manifests it self also upon
the extremities the spots are
not well circumscribed; not
elevated and not readily caused
to disappear upon pressure they
are also often petechial and asso=
=ciated with vibices. The anatomical
lesions of the glands of the intestines
and the alteration of the spleen
are always to be found in Enteric
fever, whereas Typhus has no
constant postmortem appearance
Typhus fever in nearly every instance
terminates by sweating which
is the crisis. In Enteric there is
no crisis the recovery being gradual

Entric is truly a continued fever
without abatemen. In Typhus
well marked remissions may be
noticed generally after the third
seventh and fourteenth days
with exacerbations following.
There is no doubt of the contagious=
=ness of Typhus which in relation
to Typhoid has caused so much
difference of opinion. Lastly Enteric
occurs most frequently in the fall
and winter Typhus in the winter
and spring. Prognosis. With
regard to the prognosis we have
only to say that no case is so
desperate that it should be utterly
despaired of. Wild delirium comm=
=encing early and persisting profound
and coma. profuse diarrhea excit=
=ive tympanites a very frequent
pulse a supposition on the part

of the patient that nothing ails him great and subsutting especialy when amounting to simulation of epilepsy copious hemorrhage from the bowels perforation of the intestine and the facies hyppocratica are symptoms most ominous of a fatal result. Treatment. In the treatment of Enteric fever we must bear in mind that the observations and experiments of our profession have succeeded in obtaining no specific for our administration nor any means even of abbreviating the course persued by this insidious minister of death who stealthily invading the fortress of health battles with the forces of nature and prolongs the contest varying from fifteenth to the eighth day

One thing we have learned which is that if General health has been of good character before the engagement with the forces at his command fighting under a sound constitution he is usually competent to cope with the foe and win the victory leaving little else for us to do but to reconnoitre cut off the supplies of the enemy and prevent reinforcements. After a careful perusal of the plans of treatment suggested and recommended by learned writers we are disposed to favour that adopted by Dr Wood not only because his work is our textbook but because that part of his treatment which is not apparantly at first sight most judicious is confidantly and unequivocally

asserted upon the basis of a long experience to have proved eminently successful. After the diagnosis is settled we are to secure the free evacuation of the bowels and remove all irritating matters but in our attempt to accomplish this we must not forget the tendency to diarrhoea and precribe only the mildest laxatives; should diarrhoea already exist it would be well to administer two drachms of castor oil in combination with 15 or 20 gtt laudanum if not omit the laudanum; two drachms of sulphate magnesia a single seidlitz powder or a drachm of magnesia will be sufficiant. If the pulse is full and strong and the patient robust and

plethoric, bleeding to the amount of twelve or sixteen ounces should be unhesitatingly practised but indiscriminate blood letting is a bad practice. The physician should be governed by the system of the patient and calculate his ability to resist the fever and endure its protracted continuance remembering that the loss of blood drawn from mere routine deprives him of that strength which may be necessary to sustain him in the latter stages. It is proper here to remark that it may be expedient to abstract blood both locally and generally for the arrest of inflammations complicating the disease but the propriety of opening a vein after the first week must be left to the discretion of the practitioner who should be

guided by the condition of the indi=
=vidual under treatment and not by
the edict of any book the main use
of bleeding is to prevent local and
disorganising inflammation. From
the commencement the patient
should be kept cool and as com=
=fortable as possible; his linen
should be frequently changed his
room well ventilated and refriger=
=ant diaphoretics administered the
best of this says Dr Wood is the
citrate of potassa in the form of
neutral mixture or given whilst
effervescing which is the most
appropriate form when irritability
of the stomach and nausea exist
this should be given throughout
the fever whilst the skin remains
hot and the pulse frequent and
not feeble, it may when the

pulse is firm be combined with
small doses of tartar emetic provi-
-ded the stomach and bowels are
not too much irritated by it in
order obviated which, the Antimony
should be combined with a small
quantity of laudanum or some
opiate preparation; if the patient
remains awake at night and is
restless it may be continued as
through the day every two or three
hours; but if not contraindicated
by stupor delirium or violent
headache opium in some form
should be given to procure rest
the best is dovers powder which
no only produces sleep but promotes
perspiration; when the nervous
symptoms such as subsultus
tendinum &c appear the mix-
-ture should be associated with

the sweet spirit of nitre cold
lemonade: iced water and even
small lumps of ice should be
allowed they assuage thirst and
act as refrigerants and diaphoretics
the temples arms legs and body
should be frequently sponged with
coald water and bladders of ice
applide to the head when delirium
supervenes and stupor increases-
At the commencement when the
head ache is violen the hair should
be well thined that the head
may be kept cool and prepared
for the applications of remedial
measures leaches to the temples
and mastoid processes will be
found useful when the head
symtoms are violent tenderness
of the abdomen may be treated
with warm fomentations and

cataplasms blisters are advised
by some and deprecated by others
leaches to the tender part are
highly useful when not to be
obtained cups may be substituted
if not too painfull Louis thinks
that tympanites may palliated
by enemata of magnesia and
elapsed tea; should diarrhoea
become profuse and exausting;
it may be arrested by acetate of lead
kino ext. of khatany opium and
ipecac or injections of laudanum
and starch Hoffmans anodyne
and camphor water are valuable
adjuvants in controlling the nervous
symptoms. At about the 7 or 9
day their is very often a deficiency
of the secretions as evinced by
a dry tongue scanty urine and a
parched state of the skin this

condition of things is most happily
counteracted by mercury given
in minute doses until the gums
are slightly touched when it
must be suspended to prevent
the ill effect of profuse salivation.
If after this there is no amelio-
= ration the tongue remains dry the
tympanites undiminished and
all the symptoms stationary
or increasing the oil of turpentine
will be found to be a most
efficacious remedy and particularly
applicable when the tongue having
parted with its coating in flakes
suddenly begins to recover it;
with aggravation of abdominal
distension and all the other
symptoms, it should be given
in doses from 5 to 15 drops every
hour or two, if it disturb the

Stomach and bowels a little
laudanum must be added, in
the course of twenty four or forty
eight hours a marked amelioration
will be observed in the tongue
abdomen and &c. As the case
improves the dose should be dimin-
=ished but not too hastily. We here
quote the words of Dr Wood. I will
repeat that the oil of turpentine
may be used with good hope of
benefit in any case of Enteric fever
in the advanced stage with a
dry tongue and a pulse not char-
=acterised by strength but in the
cases above refered to with a con-
=fidence of success so far as a
uniform experience of more than
twenty years may be admitted
as a ground of confidence. Hoem-
=orrhage from the bowels may be

treated with cold lemonade or ice water cold over the abdomen acetate of lead and injections. Perforation of the intestine can only be met with large doses of opium perfect repose and entire abstinence from all food and even drinks for several days. The debility which occurs must be treated with tonics and stimulants among the best are infusion of serpentaria carbonate of ammonia ext. valerian and infusion of cinchona or the active principle. Dr Wood prefers small doses of sulphate Quinia. Chomel recommends the ext. valerian and sometimes injects the infusion - wine whey milk punch and sulphuric ether must be administered at a time and in quantity only

to be determined by the physician in attendance. Opium is recommended in the latter stages for its excitant as well as narcotic effects. for coaldness of the skin attending depression hot oil of terpentine cayenne pepper heated in brandy, solution of Carbonate of ammonia sufficiently diluted will serve to apply and rub the surface with. Singultus is best treated with large doses of musk, care should be taken to prevent the formation of sloughs about the sacrum this may be done by equalizing pressure adjusting pads on certain parts to remove it from the most dependent. the bladder requires particular attention, especially in the latter stages we have inadvertently

alluded to the treatment in another place. Great caution must be observed to the patients diet nothing but the mildest and most nutritating fluid nurishment should be allowed and this in small quantities for the first two weeks, after this more nourishing food should be the patient. It is impossible to establish a rule to be governed by in every case, we have mentioned some of the means placed at our disposal. But the successful Doctor will find here as well as in every case the importance of exercising his own judgment

An
Inaugeral Dissertation
on
Pneumonia
Submitted to the examination
of the Provost
Regents & Faculty of Physic
of the
University of Maryland
for the degree of
Doctor of Medicine
By
Wm H. Leffler of Va

Feb 15th 1850

On Pneumonia

In compliance with the time honored custom of our medical schools I have put together in as good order as my time & attainments would admit my thought & information on the subject which I have chosen

There is no disease to which the physician is called upon to treat which so much demands his attention & none of so much importance to him as Pneumonia & it is a disease to which he will be called upon perhaps to treat during the colder seasons of our Climate more than any other & certainly it should demand his attention more He ought to be acquainted thoroughly with the symptoms & progress of the disease that he may be able to treat it in the proper manner whenever called upon so to do & it is for this purpose that I have chosen it for the subject of my thesis that I might better inform myself upon the subject & from my inexperience I shall of course have nothing new to write but will have to depend upon the gleanings of others who are more experienced than myself

It was not until within the last half century that Pneumonia was spoken of as a seperate disease From

ly there was no distinction made between it & pleurisy & hence the reason that in former times there were so many cases of pleurisy & never of pneumonia But it is different now since the distinction is made between the two diseases there are a great many cases of pneumonia & not so many of pleurisy

Pneumonia is an inflamation of the lungs or technically speaking of the parenchyma of the lungs Questions have been raised as to the precise part or texture of the lungs in which the inflamation begins but I shall take Watsons opinion upon that who says that in pneumonia all the textures composing the pulmonary substance in the parts inflamed are involved in the inflamatory procep There are two lungs & inflamation may affect both organs at once or it may affect one of them alone technically speaking it may be either double or single The inflamation may occupy a part of one lung or the whole of it in other words it may be partial or general But it does not affect all parts or both sides indifferently It is more common on the right side of the body than on the left by the statistical accounts made by

Auchal in respect to this point pneumonia is twice as common on the right side than it is on the left & it does not occur on both sides together so often as once in eight times Dr Power attributes the great frequency of the disease on the right side to the right lung being the largest

With regard to the part which is most liable to inflamation there are very great differences of opinion but I believe that most authors agree that pneumonia generally commences in the lower lobes & spreads upwards frequently to the superior lobes

Watson says there are three well marked & very constant conditions of the lung corresponding to different degrees & periods of its inflamation The first stage is that of engorgement the substance of the lung is gorged with blood or bloody serum it is of a dark red colour externally & crepitates less under pressure than sound lung does It feels like there were more liquid than air in its cells It is heavier than natural & inelastic & it retains in some degree the impressions of the fingers When the engaged portion is cut into it presents a red

colour & great quantities of a reddish & frothy serum flows from it & its cohesion is greatly diminished & it is more easily torn than sound lung. It is like the spleen & hence the term splenization of the lung has been given to this stage of its inflamation

The second stage or condition is that of hepatization the lung is still red externally & within but it crepitates no longer under pressure it sinks in water & contains no air It looses its spongy character it is apparently solid & the cut surface very much resembles that of the liver & accordingly the term hepatization has been given to this stage of the inflamation The hepatized lung is denser & more solid than before but it is more friable & more easily crushed & broken than in the first stage the marks of the ribs are frequently visible on the surface of the distended lung The texture of the lung in this condition is sometimes so rotten that a moderate degree of pressure between the fingers will suffice to reduce it to a state of pulp

The third stage of the inflamation is called grey hepatization or purulent infiltration The lung presents

a reddish yellow or brown or drab colour or it is of a grey-
ish hue sometimes mottled with red or with ~~with~~
the black pulmonary matter The texture of the lung
is still more rotten & friable than before it is full of
purulent matter which is sometimes so abundant that
it oozes out plentifully when incissions are made into
the lung The grey pus shows itself upon the cut surface
in the form of minute drops When crushed between
the fingers & thumb it is reduced to a yellowish grey
pulp exactly like the fluid itself only rather more con-
sistant & by gently forcing the finger into any part
of the parenchyma in this stage a small cavity may
be made which soon fills up with pus & which might
readily be mistaken for a recently formed abscess

Abscess of the lung was formerly spoken of as
a very common thing but it is now a very rare thing
In several hundred dissections made by Laennec during a
space of more than twenty years he only met with pus
in six collections of pus in the inflamed lung so we see
that it is a very rare occurrence

Gangrene is sometimes the result of acute in-

flamation of the lung but it very seldom happens yet it does now & then occur as a consequence of acute inflamation of the pulmonary substance Sometimes it occupies a large portion of the lung & circumscribed & sometimes it is more limited The colour of the part is dark of a dirty olive a greenish brown colour The gangrenous portion is moist & wet sometimes of the consistence of the engorged lung commonly softer & even diffluent & it stinks most abominably This horrible odour during life is the most distinctive character of gangrene of the lungs it sometimes renders the room in which the patient is lying scarcely endurable

The majority of cases of pneumonia are attended also with a degree of inflamation of the investing membrane of the lung There is some pleurisy present This is so frequently the case that some writers call the disease by the compound name of pleuro pneumonia But it does sometimes occur without any concurrent pleurisy

In most cases the commencement of pneumonia is marked by shivering followed by heat & increased fre=

quency of the pulse or as it is termed inflamatory fever At the same time or presently after a stich in the side comes on with cough & a sense of oppression in the chest In some instances the disease steals on more insidiously & succeeds to some other disease as pneumonichitis for instance when the inflamation appears to propagate itself by degrees from the larger to the smaller bronchi & ultimately to reach the air vesicles themselves & the intersticial textures & this may be accomplished with or without the sharp pain or stich in the side At first the cough may be dry but it soon is attended with a very characteristic sort of expectoration The dyspnoea is sometimes slight in the outset & sometimes very severe The pain in pneumonia is most commonly felt on a level with or a little below one or other breast but it may exist in almost any other part of the parietes of the chest Generally it is most severe at the begining & declines by degrees & ceases altogether or for sometime before the pneumonia ceases It is aggravated by cough or by a full inspiration often by a sudden change of posture by pressure made upon the ribs

or intercostal spaces or by percussion of the part For the same reason the patient cannot lie on the painfull side Andral attributes this pain in all cases to an inflammed pleura & he has been sustained by the post mortems which he has made of subjects dying of pneumonia

As to the decubitus of the patient there is a difference of opinion among writers Some assert that they lie upon the affected side & some upon the sound side but it is generally agreed that it is neither for the breathing is more oppressed when the patient lies on the sound side than when on the diseased one But patients labouring under this disease almost all lie on their backs & the decubitus is dorsal

The difficulty of breathing is deserving of some notice It generally bears a direct proportion to the extent & severity of the inflamation But there are many exceptions to this for in some persons the inflammation of a small portion of one lung will greatly embarrass the respiration while others may have a much larger portion of the lungs intensely inflamed & the dyspnoea will be but slight Inflamation of the superior lobe

causes greater dyspnoea than the inferior But we cannot always trust to what patients say about their breathing for they will always deny very often that they have any shortness of breath when any one can see them respiring with unnatural rapidity & observe that in this disease they pause between every three or four words they speak to take breath

The dyspnoea produced by pneumonia varies greatly in its degree in different cases Sometimes it is so slight that the patient is not conscious of it & the physician scarcely perceives it & sometimes it is so extreme that the patient entirely regardless of what is going on about him seems wholly occupied with respiring He is unable to lie down & can scarcely speak his face becomes lividly red or pale & is expressive of the utmost anxiety his nostrils are expanded & full of action The respiratory movements are very frequent & very short & shallow as if the air was not able to penetrate beyond the primary divisions of the bronchi From this state of extreme dyspnoea few patients ever recover

Delerium very frequently occurs in the course of an attack of pneumonia & it is a very bad symptom It measures the quantity of mischief which is going on within the thorax & it is a direct evidence that the pectoral mischief is telling through the circulation of venous blood upon the brain

There is no particular character in the cough of pneumonia except in some cases when it is a single short cough & not so violent as the cough of catarrh & bronchitis & it affords but little information It does not usually take place in paroxysms & its severity & frequency are not proportioned to the intensity & extent of the inflamation It is usually dry in the commencement but in a few days it is accompanied by the expectoration of a peculiar sputa which constitutes one of the most certain indications of the presence of pneumonia The expectoration when well marked consists of a transparent & tawny or rust colored sputa uniting in the vessel which contains it & it is of such viscidity that the vessel may be turned upside down & strongly shaken without its being detached from the bottom or sides At the commencement of the disease either nothing is spat

up a simply some bronchial mucus but on the second or third day generally the matter expectorated assumes the characteristic appearance They are composed of mucus intimately united & combined with blood The sputa becomes of a yellow or rust colour or of a decided red & at the same time it becomes glutinous & tenacious & it adheres together so as to form one transparent homogenious mass When ever the sputa assumes this character the disease is at its acme & the expectoration remains for some time stationary When the inflamation recedes the sputa will become agai in less tenacious less red or yellow & more like the expectoration of simple catarrh But if the disease gets worse the rust coloured sputa may continue until the end commonly there is less expectoration in that case or even none at all the sputa then accumulates in the bronchi trachea & larynx in succession & it fills up the air passages & suffocates the patient In some instances the expectoration in the advanced stages of the disease consists of a fluid having the consistance of gum water & of a brownish red colour like liquorice water or plum or prune juice Sometimes during the third stage very perfect pus

is excreted & sputa composed of very red mucus indicates pneumonia less surely than such as are tawny The very red sputa in which there is more blood than mucus often belongs to pulmonary apoplexy When pneumonia passes into gangrene the expectoration becomes of a greenish or reddish or dirty grey colour & exhales a fetid smell resembling that which proceeds from gangrene of the external parts

In forming our diagnosis in this disease one of the most important means is auscultation If the ear be applied to the surface of the chest during the first stage of the inflamation that of engorgement we can hear a peculiar crackling sound the smallest & finest kind of crepitation which has been illustrated by saying that it resembles the multitudinous little crackling explosions made by salt when it is scattered over red-hot coals & another resemblance for it is the noise like that which is produced by crumpling a very fine piece of parchment & another is like that of rubbing between the fingers & thumb a lock of a woman hair close to the ear This is called by Laennec crepitant

rhonchus but Watson calls it minute crepitation & the crackling of pneumonia & this is a very important sound It is a direct symptom having immediate reference to the structure of the part It gives the earliest & surest intimation that such a disease has begun as tends to disorganization & the inevitable loss of life unless quickly arrested by its counteracting remedies In the early stage of the inflamation the minute crepitation which announces commencing engorgement of the part is heard mingled with the ordinary vesicular breathing the natural sound is obscured though not entirely but as the inflamation advances the crackling becomes more & more pronounced until at length it totally supersedes it Whenever the crackling sound becomes predominant & masks the murmur of respiration entirely that denotes the progress of the pneumonia & teaches us that it tends to pass from the first to the second degree But the crackling sound does not remain long in any part As the case proceeds the sound is less & less heard & at length is not heard at all in that spot Its place may be taken by the natural respiratory

manner again When this is so it denotes the resolution of the inflamation But if the crackling cease & no sound at all is heard in its stead or another morbid sound this teaches us with absolute certainty that the disease is growing more severe & serious & that the lung is becoming or has become hepatized

When the lung has passed from the first into the second stage of inflamation & become solid or hepatized instead of the natural sound or the minute crepitation which belongs to the first stage of the inflamation we either hear no sound atall although we feel the chest heave up against the ear or we hear the bronchial respiration That is a puffing sound which is conveyed to the ear from the larger & still pervious branches of the bronchi through the solid walls of the chest & when he speaks his voice is heard much more resonant than is natural It is much more than in the corrisponding spot on the opposit side of the chest These are two sounds which are never heard in the healthy state of the lungs Bronchial respiration & bronchial voice or bronchophany They are more distinctly heard when the infla-

mation occupies the upper part of the lung or the central parts & when it extends from thence to the surface than when it occupies the lower & if hepatization should be so general & complete as to prevent the chest on the affected side from expanding there will be no bronchial respiration but bronchophony may remain When there is bronchial respiration there is usually dullness on percussion Whenever there is puerile respiration it is a strong symptom that a part of the breathing apparatus is spoiled & that the remaining part is endeavouring to compensate for its deficiency

The period in pneumonia when no sound but bronchial breathing is audible during respiration is one of painfull & anxious interest We cannot tell whether the lung will invest gradually to its healthy state or whether it is passed into the third stage that of purulent infiltration

By auscultation we can trace the disease through its stage of engorgement & into the stage of hepatization but it cannot be traced further with any certainty We cannot say whether it remains in a state of

hepatization or wether it has passed into the third stage
But if the structure of the lung breaks down & a portion
of it is expectorated air finds its way into the vacant
spot & gives rise to a large gurgling crepitation

In forming an prognosis in this disease of the
general symptoms the most important independently
of auscultation as a prognostic sign is the respiration
considerable dyspnoea is always a bad omen the tongue
but little information from the state of the pulse If
however a feeble pulse goes along with great difficulty
of breathing & if it does not develop itself after the first
bleeding we must conclude that the inflamation is
intense & forms therefore an unfavourable prognosis
Delerium is always a discouraging symptom great
viscidity of the sputa & a deep rusty colour announ
ces intensity of inflamation Its return to the natu
ral condition indicates that resolution is going on
Watery sputa & hemmorrhage more or less like plum
prune juice should induce us to suspect suppuration
of the lung & is therefore of bad augury

In the treatment of pneumonia the great ins-

treatments to be employed are bloodletting tartar emetic & mercury Of these bloodletting is the chief In the first place it tends to restrain & extinguish the inflammation & in the next place it has the effect of relieving the particular functions of the lungs And the result of the free abstraction of blood in this disease fully vindicates the value of a practice which has been praised per ages The late Dr Gregory of Edenburg said that provided he was called early to a case of pneumonia he would be contented to dispense with all other aids than those of a lancet & water gruel And a distinguished french writer M Louis has endeavoured to show that venesection has no control over the progress or event of pneumonia But so far as my own humble opinion is entitled to respect in regard to bloodletting I should not be willing to agree with him The abstraction of blood will be effectual in proportion as it is early, during the first stage & before the spongy texture of the lung has been obliterated The patient should be bled in an upright position by a large orifice & in a full stream & should be continued until some sensible impression is made upon

the system Until the pulse becomes softer or if it were contracted until it becomes fuller Until the sensation of constriction is abated & the dyspnoea is relieved or until syncope appears to be at hand Bleeding in the early stage will often give very speedy relief both to pain & to the dyspnoea Sometimes the pain does not cease at once but goes off a few hours afterwards But if the breathing is not at all relieved at first - the case generally though not always ends ill One bloodletting will not always suffice even when it is done early But such favourable cases does happen sometimes The patient should always be seen within four or five hours after the first bleeding that it may be repeated if necessary

As an auxiliary to the lancet cupping & leeching is sometimes advantageous & particularly if there be pain The part to which they should be applied should be determined by the situation of the inflamed portion of the lung The whole of the antiphlogistic regimen should be rigidly enforced & the patient should keep his bed & all superfluous exertions of the lungs should be avoided

When the inflamation has gone on into the second stage bloodletting will not have so decided an influence upon the inflamed & solid parts But if duly moderated it will even then be of some advantage It will diminish the force of the heart & arteries & so tend to prevent the extension of the inflamation & it will lessen the quantity of blood circulated through the lungs & thus it will relieve dyspnoea But there is a time when bleeding is no longer of any use When it is hurtfull & it ceases to have any good influence on the local disease & has an injurious influence on the whole system A remedy therefore will be needed to assist the lancet or to employ alone when the lancet can do no more And there are two such they are tartar emetic & mercury The tartar emetic plan is best adapted to the first degree of inflamation that of engorgement And the mercury to the second that of hepatization

Tartar emetic is not given with the object of vomiting It should be given & repeated in small doses so as to produce nausea & retching & if it produces sickness & purging a few drops of Laudanum should be added

Dr Thomas Davies says from his own experience that the tartar emetic always acts best when it produces no effect except upon the inflamation itself That is when it does not cause vomiting or purging or a general depression of the powers of the system When the dyspnea has been relieved by the antimony it should be intermitted But if the inflamation should shew any disposition to rekindle it must be again extinguished by a repetition of the tartar emetic

When the inflamation has gone on into the second stage that of hepatization Watson says that mercury is worthy of more confidence than tartar emetic It should be given with the object of making the gums sore & this should be done as speedily as possible It should be given in small doses & repeated at short intervals until the gums are effected If the internal use of mercury should be contraindicated in any way or it appears slow in producing its specific effect the compound liniment of mercury or the strong mercurial ointment may be rubbed in

Counter irritation by means of blisters is of

some importance But they should not be applied too early in this disease In the commencement while there is yet considerable fever present they add to the irritation & probably tend to aggravate the existing inflamation & destroy the patient When the fever is no longer burning but the expectoration is still difficult & the dyspnoea considerable & a sensation of pain or tightness or oppression is experienced in the chest Then a large blister is often productive of very sensible benifit But the blister should be very large one so as to cover a large portion of the chest or it will be of little benifit in this disease

After the lung has become solid & impervious the treatment must be regulated rather by the state of the system at large than by the actual or presumed condition of the lung We must look for guidance more to the general symptoms than to the physical signs If the pulse continues steady & firm we should wait patiently the effect of the mercury But when sunken features a pallid face coldness of the surface of the extremities & above all

a feeble & irregular pulse proclaim that the vital pow
ers are giving way It will be requisite as in other cases
when death is threatened by asthenia to administer cor-
dials & wine & stimulant medicines the carbonate of
ammonia in a decoction of sanaka & wine & to feed the patient
well on milk or beef tea or some other stimulating diet

In the early stage of this disease the diet should
be of mucilaginous & farinaceous drinks such as gum water
barley water thin gruels &c to which may be added the
decoction or infusion of the dried fruits & the juice of oran
ges or fresh grapes At a more advanced period when the
fever has been somewhat subdued tea & toasted bread
or crackers with a little rice or Indian mush may be
allowed after these milk & finally at the period of con-
valescence broths & the lighter meats

The convalescence will be in proportion to the
duration of the disease If it is attended to in the first
stage & the inflamation is cut short the convalescence is
very rapid & the patient will be well in two or three
days But if it is suffered to run on into the second
or third stage the convalescence will be much longer It

will be about ten or twelve days or longer in some cases During this time visiters should be excluded as talking even in an under tone is injurious to the patient & great care should be observed that he does not expose himself too soon afterwards The diet should be such as I have already mentioned

I have now finished this subject to the best of my slender ability & I now commit it into the hand of my preceptors in the University of Maryland to whose tuition I feel myself indebted for the largest portion of my medical knowledge And I know not how to express my thanks in terms sufficiently cordial for the instruction which I have received from them I will conclude by saying that it is my most sincere wish that the future of my Alma Mater may be as useful & prosperous as it has heretofore been

An

Inaugural Dissertation

on

The Pulse

Submitted to the examination of the Provost, Regents, and Faculty of Physic of the University of Maryland for the Degree of Doctor of Medicine

by

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of

Pennsylvania.

Baltimore

1850.

Since the time of Galen, much importance has been attributed by physicians to the phenomenon of the pulse; by which term is meant, the beat felt by the finger when applied over any of the larger arteries.

Its cause has been a matter of dispute amongst physiologists ever since their attention has been called to it; whilst some refer it to distension of the artery caused by contraction of the left ventricle of the heart: others are of the belief that these vessels posses a contractility peculiar to themselves sufficient to explain the whole phenomenon.

It is unnecessary however for us to enter the field of discussion, and argue the merits and demerits of each theory which has been advanced, suffice it to say, that although the majority

of physiologists have agreed, that it is produced by the afflux of blood propelled by the hearts contractions: that there are certain pathological conditions of the pulse which are almost inplicable; unless a compound action of the heart and arteries be admitted.—

In health the pulse is described as being equal, regular, supple, and moderate in strength.

The number of pulsations in a given length of time, may be influenced by certain accidental circumstances: such as age, sex, stature, temperament &c— being more frequent in early life than old age; in females than males; in small persons than large; and in those of a sanguine or nervous temperament than otherwise.

Certain positions of the body, may also influence the pulse.—

Its beats are said to be more numerous in the standing than in sitting posture; and in the sitting than in the recumbent.

Owing to these unavoidable circumstances; it has been found impossible to arrive at an accurate estimate of the comparative frequency of the pulse.

We shall however make such statements as have been regarded by physiologists as approximations.

In infancy the arterial pulsations are infinitely more numerous than in old age; the average of one being one hundred and forty- the other sixty per minute.

In the adult male they are estimated at from sixty to seventy five; in the female eight or ten more, whilst the pulse of a child two years old rarely exceeds one hundred and ten, or falls short of ninety.

We are fully aware that this

estimation of the frequency of the pulse in the different periods of life is conceived by some authors to be incorrect.

They assert that the frequency of the pulse in the newborn infant is often no greater than in the adult; and one author gives eighty seven as a medium pulse in infants aged from two to twenty one days. whilst two others in making their investigations came to the conclusion that it is more frequent in the aged than in the young; indicating the number seventy-three as a mean in the former, and sixty-five in the latter.

It is desirable and it would be better if these conflicting opinions could be reconciled as they are only calculated to mislead and bewilder those who are in search of the truth; and they might be if proper rules were observed in making researches, and those results only noticed which

are deduced from a great number of facts; all others being discarded as nugatory and mischievous.

But whilst the phenomenon of the pulse is to the physiologist (apparently) only a subject of curious inquiry; it is of vast importance to the pathologist.

The information obtained by its careful examination, is often to him of the most interesting and instructive kind.

But in order that he may more fully avail himself of its assistance, it will be necessary to premise a few rules relative to its examination. Nothing is more common than for a physician to feel the pulse of his patient: in fact it is considered almost "sine qua non" to prescribing; yet notwithstanding it is a duty very often as

carelessly performed as it is imperiously demanded.

That the physician may more fully appreciate the changes effected on the arterial pulsations by the influence of disease, he should wait until any emotion produced by his presence shall have subsided, at the same time requesting him to become perfectly composed and quiet, after which the patient should be placed in a position, that would be little likely to impede the circulation of the blood in the arteries.

A sitting or horizontal posture is the best.

All clothing or bandages making the least compression should be entirely removed.

The pulse may be examined any place where the artery is sufficiently large and superficial.

Choice is generally made of the wrist or

the radial artery where it becomes superficial, or ceases to be covered by the muscles of the forearm.

After making choice of the artery, the physician should proceed carefully to the examination; using his right hand on the left side of the patient and "visce versa" all four of the fingers should be used; and so placed as to be parallel on the same line.

Thus arranged apply them over the track of the vessel, the index finger being next the patients hand.

The fingers so applied may be firmly supported by placing the thumb or palm of the hand on the back of the forearm.

Gentle pressure should now be made and withdrawn several times in succession, in order to learn its effects and at the same time ascertain the

different qualities of the pulse.

After being fully satisfied in regard to these particulars. the examination may be suspended; to be repeated however, several times before leaving the patient.

By strictly adhering to this plan of examining the pulse: we may in a short time acquire such skill as will as will enable us to detect the most minute quality; and always judge of its true character: at the same time avoiding all those perplexities that would be likely to occur as a consequence upon careless and imperfect examinations.

The changes effected on the pulse by the influence of disease are many. Those however most attended to by physicians are its frequency, its regularity, its fullness, and its force.

Frequency of the pulse is determined by noting the number of beats occurring in a given length of time.

This can be done with great precision by means of a watch; which mode should be resorted to in all those affections where it is important to note the slightest alteration from day to day.

In ordinary cases however this rule may be dispensed with; not being absolutely necessary it remains open to this grave objection— viz— that it involves some ostentation. and may consequently expose the practitioner to ridicule, which should in our day be scrupulously avoided.

The precise time to be occupied in counting the pulse need not be defined, one minute is always enough; whilst a half or even a quarter may do.

In some extreme cases however it will

be found impossible to count correctly the number of pulsations occurring in any of these periods.—

This difficulty may be overcome by dividing a quarter of a minute into periods of five seconds each, and then counting the number of beats occurring in each one of these periods separately.

As the lower numbers can be told more rapidly than the higher ones; physicians by resorting to this stratagem have been able to count accurately two hundred pulsations in the minute.

On the other hand if they had attempted to count for a whole minute, it would have been impossible for them to have detected more than one hundred and forty or at the farthest one hundred and fifty pulsations.

Frequency of the pulse in disease is extremely common.

It occurs in almost all acute diseases, and in some chronic affections.

This quality of the pulse is often accompanied by another called quickness, in which the beats themselves take place with celerity.

This quality however is extremely difficult of detection after the pulse reaches ninety or one hundred beats per minute.

Although these two qualities generally accompany each other they may exist separately - i.e. - frequent without being quick, or quick and at the same time rare.

Infrequency or rareness of the pulse is not so common in disease as the quality just spoken of;

seldom occurring except in some cerebral affections, and in some organic lesions of the heart.

The pulse is described as being regular, when the pulsations succeed each other at equal intervals; and irregular, when they return at unequal intervals.

Irregularity of the pulse, is a condition full of interest to the pathologist.

It may, however, exist in perfect health; but is generally symptomatic of some organic disease of the heart, or important lesion within the head. It is sometimes also caused by the slightest affections; such as simple disorder of the stomach, the presence of worms, or the accumulation of gas, in the alimentary canal.

This condition of the pulse is also present in the last last

hours of life. in most diseases. The intermittent, and recurrent pulses of some authors, are but varieties of the irregular pulse. The characteristick of the former is the apparent failure sometimes of one of the pulsations; whilst in the latter a pulsation sometimes, though rarely occurs in the interval between two regular pulsations.

The pulse is full, when when the artery strikes a large portion of the finger, or gives to it the impression of being larger and fuller than natural. Hardness of the pulse is characterized by great tension of the artery during pulsation; the sensation conveyed to the finger resembles that which would be produced by a hard body striking it.

The two qualities just described frequently occur in combination,

constituting the strong or forcible pulse; and from the successful resistance which it makes on being subjected to pretty firm pressure by the fingers; it is also sometimes called incompressible.

This condition of the pulse, is generally present in acute inflammations; and is often the best warrant for bloodletting, which circumstance has rendered it of much practical importance.

Frequency of the pulse is a quality which mostly obtains in inflammatory diseases; but it must not alone be looked to in ascertaining the expediency of bloodletting. It is hardness of the pulse, "cæteris paribus," which always indicates this measure; and whenever the condition can be fairly made out, it should of course be adopted.

But, unfortunately this

quality of the pulse is not as easily detected, as some might imagine: in short it is not every one who can tell a hard pulse when he feels it.

In order, in any case, to be able to do this correctly, the finger requires to be educated or trained by frequently examining such a pulse, and comparing your own perceptions of it with those of other individuals.

There are some other varieties of the pulse, which though of less importance than those just described may be mentioned — such as the soft, feeble, slow, depressed, unequal, cordy, tense, resistant, contracted, vibrating, trembling and dicrotic.

Softness of the pulse is that condition in which the artery strikes the finger gently, and is easily compressible. This quality of the pulse is said

to be present in several pathological conditions; it is perhaps as well marked in "delirium tremens" as any other.

When the pulsations are weak and slender, or when the artery strikes but a small portion of the finger, the pulse is small; and these two qualities (that is softness and smallness) existing simultaneously, constitute the feeble pulse.

Slowness of the pulse is the opposite of quickness; which has been described above.

This term should never be confounded with infrequency or rareness, as the meaning they are intended to convey is essentially different. The former quality is appreciable in each pulsation; whilst the latter is perceptible only, by comparing a certain number of beats.

The depressed pulse is simply a very feeble one.

The pulse is said to be equal. when the pulsations resemble each other in some of their attributes such as fullness hardness &c.—

An unequal pulse, is the opposite of this; or that condition, in which the beats differ from each other in these respects.

The term contracted, is applied to that condition of the pulse, which is at the same time small and hard.

A vibrating pulse, is one that is extremely hard; it is sometimes called a jarring pulse: the sensation conveyed to the finger by the artery, has been compared to that which would be produced by a musical string striking it.

Trembling of the pulse, denotes that condition in which the artery seems to strike the finger twice; or in which it is difficult to ascertain with precision, whether it strikes once or twice; in short it is a pulse which oscillates.

A dicrotic pulse, is that in which two beats are distinctly perceptible in each pulsation. ----

— Having now given each variety of the pulse known to us, a cursory examination; we will draw our remarks to a close.

It will be seen, that in the foregoing pages it has been our intention, to give a simple and unassuming description of the phenomenon of the pulse; as it presents itself to the physician: and urge upon him the

importance of having a true perception
of the many changes, wrought upon it
by the influence of disease.

How far we have
succeeded in our humble design, is
left to your superior judgments to de-
cide; all we dare hope is that it may
meet with a share of your approbation
and accomplish the end for which
it was intended. — —

An Inaugural dissertation

On

Aneurism,

Submitted to the examination

Of the

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Of the

University of Maryland,

For the degree

of

Doctor of Medecine.

By

Martin Brewer.

of Maryland.

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An Aneurism (aneurisma, to dilate) may be defined — A tumor, containing blood and Communicating with the interior of an Artery.

They may be arranged under two divisions, the spontaneous or true, and the traumatic or false aneurisms. — The distinction between the two classes consists in the former having as a predisposing cause Arterial degeneration, and in the Coats of its cyst being composed of arterial tunics. The latter embraces those cases in which a healthy artery having been opened, the escaping blood condenses and forms into a cyst the surrounding cellular tissue. The absence of the arterial degeneration is to the Surgeon the great practical difference. In Consequence of this, he can open the Cyst, and apply the ligature immediately above

and

and below the tumor, confidently expecting a happy
termination.

Passing over the traumatic aneurism, we enter
upon the consideration of the true, and will
mention first its symptoms — The patient's
attention is attracted to a small tumor,
gradually increasing in size — at first soft,
containing only fluid blood, afterwards
hard, its interior being partially filled with
Coagulum — from the commencement there is
in the tumor pulsation, synchronous with the
heart's impulse, distinguishable by tact and
sight — Pressure upon the cardiac side diminishes
upon the distal side increases its size — at every
pulsation there is a distinct expansion through-
-out the tumor, a thrill is felt by the compres-
-sing hand, and a blowing sound revealed
by auscultation — this pulsation is dimin-
-ished or destroyed by pressure upon the cardiac
side — The growth of the tumor is gradual but

Constant

Constant; pain is not a necessary concomitant and is felt only when the tumor has attained sufficient size to press upon the surrounding parts.

As the aneurism enlarges the distal side of the artery decreases, and if the parts below depended for their nutrition altogether upon the affected vessel, their vital powers would be greatly reduced— But nature has provided for this emergency— Collateral branches, though small, always existing, are now called upon— enlar— —ging they offer to the blood an easier passage than that afforded by the main channel, passing around the tumor they at some distance below empty into the principle trunk, restore it to its normal size, and the circulation is thus equalized, only passing in a more circuitous route.

As the tumor enlarges, the neighbouring parts, as we have before said, are displaced; but displace— —ment and impairment of functions are not

the

the only evils resulting from its growth – these structures are changed – part of their textures are absorbed under the constant pressure – part become incorporated with the walls of the cyst – no viscus or texture can resist its progress – all however do not yield equally readily – fibrous tissues give greater resistance, bone less – as the tumor thus advances in spite of all obstacles, other symptoms, in addition to those of a local character present themselves – The patient suffers under pain, numbness, Edema and constitutional irritation – failure of digestion, weak, frequent pulse, and loss of strength all supervene – But even this state cannot last, – the aneurism finally reaches the surface – the last opposing tissue yields – an opening is effected, hemorrhage takes place, and although not immediately fatal – owing to the curative efforts of Nature plugging the aperture by coagulum, they again and again recur, until the patient sinks under their combined influence –

But

But it does not necessarily follow, that the cyst must be opened for death to result; a fatal termination may ensue in other ways — by pressure upon important organs — by constitutional irritation and its consequent hectic; and by inflammation and suppuration of the sac.

The diagnosis of aneurism is always important, and at times requires all the tact of the skilful Surgeon, and instances have occurred, in which even these have been mistaken, and acting under a false diagnosis, have found their error only when too late, after their patients have been subjected to painful and dangerous operations — It would at first seem that the characteristic signs of Aneurism, pulsation and expansion would easily distinguish it from other diseases; but even these may be simulated, as when a tumor is situated over the course of an artery and moved by its every beat. Chronic abscess, glandular and other solid tumors, are most likely to be confounded

with

with this disease, and the symptoms distinguish-
-ing it from these affections, require a more minute
consideration - Aneurism during its first stage,
whilst the blood remains uncoagulated, is soft and
compressible, but hardens during the progress of
the disease - Chronic abscess, enlarged glands &c
are the reverse, primarily hard, afterwards soft -
Pulsations is also a valuable diagnostic sign,
it is equable, diffused throughout the tumor, sym-
-chronous with the hearts action, and present
from its commencement, the cyst being expanded
by each throb of the artery - Such is not the case
with other tumors, pulsation in them cannot take
place until they encroach upon the artery, and it is
of course absent until they have attained a size
sufficient to do this; - And even then they can
undergo no change in volume, cannot be enlarged,
but only elevated by the arterial throbbing; - by
changing the position of the tumor the distinction
is rendered more obvious - pull it to one side and

in Aneurism the pulsation continues, the artery being equally displaced, expansion and thrill still continue; - but these are lost in other tumors. Pressure also materially assists the diagnosis; - if made; - if made upon the cardiac side, diminution, if upon the distal, increase in size, will indicate aneurism - no change will show the falsity of the suspicion.

The causes producing aneurism may be divided into predisposing and exciting - The former depends upon an arterial degeneration - upon the deposit of a substance, resembling in chemical constitution ordinary fat, in the cellular tissue between the middle and internal coats, called the steatomatous or earthy deposit - The favorite site of this deposit is where the current of the blood is turned either by the natural curvature of the vessel or by collateral branches - The elasticity and tone of the vessel being thus impaired, the coats yield to the impulse of the blood, but do not contract and

recover

recover their calibre as before, and dilatation is
thus commenced and increased.
Of the exciting causes, the most common are
Muscular exertion and mental emotion — Cases
have occurred, in which a limb having for a long
time been kept in a relaxed condition, the artery
yields and an aneurism formed upon ordinary
muscular exertion — such is said to be the case
with Coachmen, who are particularly subject to
popliteal Aneurism. — In some cases the steato —
— matous degeneration would seem to be general,
forming an aneurismal diathesis — In such cases
several aneurisms are found to exist at the same
time; — Sir Astley Cooper, in his Surgical Lectures,
relates a case in which seven were found in the
same patient, and similar cases are related by
Mr Tyrrell and others — This diathesis is indicated
by arterial thrill and cachectic condition of the
patient — The knowledge that such a diathesis
may exist teaches the Surgeon one practical lesson,

always

always previous to operating for the external Aneurism, to examine whether one exists internally, for although he succeeded in curing the former, he would hasten the fatal termination by the latter.

Although, as a general rule, this disease requires the assistance of art, nature occasionally effects spontaneous cures — she accomplishes this in two ways, — one, the safer of the two, by the same principle on which the Surgeon operates, the other more severe and often fatal. — The former depends upon the deposit of lamellated coagula on the interior, and gradual obliteration of the sac. The tumor having attained some size, the blood flows more slowly at its fundus than at its neck, a fibrinous coat is thus deposited, upon this, as a nucleus, additional layers are formed, and if the internal deposit exceeds the external absorption, the cyst is filled, and the arterial tube above and below obliterated to the nearest collateral branch, — the circulation is thus turned into another but

more

more circuitous channel — so desirable an event as the deposit of coagula is indicated by the increased hardening, and gradual diminution of pulsation in the tumor. — The second way in which nature endeavours to relieve herself, is much less success- -ful - it is by an inflammation being set up in the sac, and running on to gangrene; a dense bloody Coagulum is formed within the vessel closing its canal and preventing the ingress of blood into the sac - Hence its ensuing sphacelation and sloughing is not accompanied by fatal hemorhage, and if the patient possesses a Constitution able to bear so great a derangement of health as is the inevitable consequence of the inflammation and gangrene he is cured of his disease.

But little reliance however can be placed upon the unaided efforts of nature - the progress of the disease, as a general rule, is onward to a fatal termination - The aid of the Surgeon is indispen- -sable, and he fortunately is able in the great

Majority

Majority of cases to promise relief. Previous to the discovery of Hunter this disease was eminently fatal - the operation of cutting into the cyst, turning out the coagulum, and securing the vessel above and below was eminently fatal, and before this, when Amputation was depended upon, the knife with its accompaniment, the heated iron, was scarcely less dreaded than death itself.

The treatment of this disease may be divided into the Surgical and medical. The latter, it is true, in most cases can only be palliative; but as in internal Aneurisms it is the only hope offered will deserve consideration.

It is evident that the only radical cure consists in the obliteration of part of the supplying artery - When the internal coat of an artery is lacerated, adhesive inflammation is set up, lymph is effused, coagulum formed, and the artery con- - verted into an impervious fibrous cord. It is unnecessary here to deal in details, and mention

all

all the steps by which the temporary and permanent Coagula are produced, it is sufficient for us to know that these effects take place. — The ligature is the mode now generally employed to produce these results, the application and effects of which we will first describe, and then the various other means, which, from time to time, have been practised by Surgeons in the treat-ment of this disease. Hunter first performed deligation upon a healthy part of the artery, and upon the Cardiac side of the tumor, and tho' it terminated fatally, it was from no error in the principle — An incision is made, the artery ex-posed at some distance above the seat of the disease — its sheath opened — the accompanying Vein and nerve being carefully separated, a Ligature, well waxed, is passed under by means of the needle, drawn lightly so as to divide the internal Coats — Care being taken that neigh-bouring parts are not included — One end of the

Ligature

ligature is then cut off, the other left hanging out of the external wound, which is closed, so as to procure union by the first intention to as great an extent as possible – the limb is then placed in a relaxed position – In the course of from ten to twenty days the ligature is loosened by ulceration, and may be withdrawn, but force should never be employed to assist in its detachment. The Current of the blood being arrested at the ligated point, passes through and enlarges the Collateral Vessels – The tube is closed by a Coagulum of blood assisted by exudation of fibrine – this Coagulum extends as far as the nearest Collateral branch, and is of a Conical form, its base being at the ligated point – The same fibrinous exudation is thrown out exterior to the artery, enveloping the ligature, that portion of the artery however immediately under the ligature has its vitality destroyed and is discharged by suppuration – A Compact swelling thus occupies

the

the place of the artery at the ligated point. The fibrinous mass is gradually absorbed, and the artery contracts to the nearest collateral branch above and below. Such are the effects of the ligature upon the artery when applied upon the Hunterian plan. In the tumor it immediately arrests pulsation, diminishes the swelling and hardens it by coagulum. At first the temperature of the limb falls, but as the circulation through the collateral channel progresses, it again rises.

We have thus described the principle, the mode of application and the effects of the ligature. This is but a part however of the treatment. There are preparatory and subsequent steps of great importance and to the careful regulation of which may be ascribed much of the success attending the operations of one Surgeon compared with those of another. It would not be safe to carry the laboring man direct from his daily occupations to the operating table — for some days previous

to

to the operation he must be kept in a state of repose—
his diet and secretions carefully regulated, use
of stimulants prohibited and vascular excitement
allayed. After the operation has been performed,
the patient must still be kept in a state of mental
and corporeal quiet, a gentle state of the circulation
maintained, and antiphlogistic regimen employed,
the limb placed in a comfortable and relaxed
position and no pressure upon the tumor allowed—
Stimulating frictions or applications are also
inadmissible for fear of producing too great
Vascular excitement and consequently inflam—
—mation and gangrene.
Though the ligature may have been successfully
applied, it does not necessarily follow that a
cure will be obtained— Ulcerations, phlebitis,
Sphacelus, Secondary hemorrhage may occur,
and carry off the patient— Thus in 185 cases
of femoral and popliteal aneurisms operated
upon (collected by Dr Edward Crisp) the following

were

were the results

Died from the effects of the operation - 33 - being one in every 5 cases. — Of the 152 that were cured,

Recovered after subsequent amputation — 10

" " Sloughing of sac — — 3

" " " of integument — 1

" " Mortification of toes — 1.

Seeing then the fatality attending the application of the ordinary ligature, the minds of Surgeons have been directed to such a modification of Hunter's, or the discovery of some new remedy not liable to this objection. None of them however have succeeded. Dr Jones, in his experiments with the ligature, came to the conclusion, that a cure might be obtained by the temporary application of the ligature, in the hands of other Surgeons failed — Another plan was, to use a flat, broad ligature, instead of the round one — this though bearing the high name of Scarpa never came into practice.

There is an operation, bearing the title of

Brasdor's

Brasdor's, the reverse of Hunter's, it consists in applying the ligature upon the distal side of the tumor – It is necessary for its success that the ligature should be applied between the cyst and the first collateral branch – if this is effected, the current of blood is stopped; Coagulum forms, fills up the tumor and extends to the nearest branch on the cardiac side, and a cure may be obtained. It labours however under one great disadvantage; We have stated, that for its success there must be no branch between the ligature and the cyst; it is therefore often necessary to apply it near to the sac, and consequently there is danger of the artery being diseased at the ligated point. – It is however at times the only operation that can be performed, thus if an Aneurism is seated at the root of the right Carotid, Experience has taught the inutility of ligating the innominata, but there being no branch for some distance on this artery, Brasdor's Operation might be resor-

– ted to

-led to with some chance of success.
Passing over other operations, of ephemeral existence, for the cure of this disease, We come to one ancient in its origin - Sharing the fate of many others it passed into neglect, has been again revived, and promises in many cases to prove an useful substitute for the Hunterian operation - We refer to pressure, lately brought into notice by Dr Bellingham. We have said that this was an old method, but the former and the present plan essentially differ - the first consisted in severe and long continued pressure, and of course mostly failed; - if the patient had fortitude to bear the necessary concomitant, most excruciating pain, the result generally inflammation and sloughing of the adjacent parts, at times involving the artery; it consequently passed into deserved oblivion so soon as any other treatment was devised - In the plan now pursued the object rather is to assist nature in her curative

efforts

efforts. As with the ligature, so with pressure, a healthy part of the artery is chosen, and upon this pressure is applied, not constantly, but removed so soon as the pain and tumefaction become distressing to the patient; again and again applied until a cure is obtained. The object now is not, as it formerly was, to press the two sides of the artery completely together and totally obstruct the flow of blood, but rather by lessening the size of the tube, to diminish its force and quantity, and thus favor the formation of coagu-
-la in, and obliteration of the cyst. To obtain a successful result by this method preparatory treatment is as necessary as it is before liga-
-ture; in addition to this compression should only be applied on the course of the artery, so as to allow the collateral circulation to go on; the whole member should also be uniformly bandaged. It is evident that this method of treatment cannot in all cases be substituted for the

ligature

ligature = It can only be useful in cases of Aneu-
-rism occuring in the extremities - But in
these it has been eminently successful, and
is well worthy of a trial before proceeding to the
last resort, the application of the ligature -
Since 1842, 37 cases of popliteal aneurism
have been treated by this method - of these
33 were cured - of the remaining four, 2
died, one from disease of the heart, one from
erysipelas, two were operated upon = Thus
the proportion of deaths to cures was as 1:16.5 =
Compare this result with the treatment of
the same aneurism by ligature of the femoral
artery - for this purpose we avail ourselves
of the cases collated by Dr Norris, reported in
Hay's Journal - 188 operations were performed -
of these 142 were cured, 3 after Amputation,
46 died - being as 1:3.09 = The greater proportion
of cures by pressure, would certainly serve to
direct the attention of Surgeons to the former; it

is

is yet however in its infancy, and a greater applic-
-ations and wider experience is still necessary
for a fair decision to be made between the two.

It only remains for us now to consider
the medical treatment of this disease. We have
mentioned the most important modes by which
Surgeons have managed those occuring externally -
but there are many in which his art is unavailable,
in these by suitable medical treatment, the patient's
life may be prolonged, if not preserved, - Upon this
plan Valsalva relied, - by frequent bleedings and
low diet he kept the patient as low as was consis-
-tent with the preservation of life; his objections,
the same as we have mentioned in another part,
by diminishing the force and velocity of the blood,
to favour Coagulations - He went however to ex-
-tremes, and must doubtless at times have in-
-creased rather than have diminished the disease -
His constant bleedings caused, what he was
endeavouring to prevent, excessive arterial reaction,

The

the impoverished condition of the blood causing an irritated action of the heart; whilst at the same time it lessens the disposition of the blood to coagulate. A better treatment would be to moderate the heart's action, under the notion of the blood thrown, without impoverishing it; to keep the diet, mild, nutritious, and unstimulating. Sedatives may be useful by lessening the heart's action; the bowels should be carefully regulated - the secretions duly attended to - and perfect repose of body and mind enjoined. By patience and perseverance, the physician may be rewarded in the a cure, but such happy terminations are unfortunately rare, the exceptions not the rule; and his skill in the vast majority of cases can only inform him of the disease under which his patient is suffering, whilst at the same time by the hopelessness of the case, it teaches him the weakness of science.

An

Inaugural Dissertation

On

Scarlet Fever

Submitted

To the Examination

Of

The Provost Regents

And

Faculty of Physic

Of the

University of Maryland

For the

Degree of Dr. of Medicine

By

William Hughes Fitzhugh

Of

Washington County

Maryland

A. D. 1850

Scarlet Fever is a contagious exanthematous febrile disease, owing to the action of a peculiar morbific poison; and characterized by inflammation of the fauces; and by a scarlet rash, appearing usually upon the second day, and terminating in desquemation about the sixth or seventh. It is a disease to which children are peculiarly liable; and as few are capable of contracting it a second time we find comparatively few offering from it in adult age. Scarlet fever has been divided into three forms according to the different symptoms which present themselves most prominantly. Scarlatina Simplex in which the skin is principally affected the throat suffering scarcely any if at all. Scarlatina Anginosa in which the throat is principally affected and Scarlatina Maligna in which the throat is affected although not so deeply as in Scarlatina Anginosa and the nervous system deeply prostrated: There is still another form Scarlatina Sine Eruptione

in which we have the affection of the throat alone without the rash still about the usual time we have desquamation showing the skin to have been implicated in at least a slight degree. The period of incubation is from three to four days then either with or without the ordinary precursory symptoms of fever such as languor weariness rigors and pains in the back and limbs the fever sets in with a frequent pulse, hot dry skin, flushed face, furred tongue, anorexia, thirst, and great muscular weakness. Sometimes there is nausea and vomiting or epistaxis; sometimes also more or less headache or other symptoms of nervous disorder such as restlessness, morbid vigilance, delirium, stupor, coma, or convulsions. In relation to the severity of its symptoms the fever is of very possible grades from a mildness scarcely amounting to disease up to the highest point of violence and danger. Along with the fever sore throat beginning with it and sometimes a little after its commencement

there is almost always more or less irritation or inflammation of the fauces which upon being examined appear red and not unfrequently swollen; The same colour is diffused over the interior of the mouth and the tongue though coated with a thick creamy fur is red at the tip and edges and shows its papillae en-larged and red projecting through the frosty coat looking not unlike a strawberry covered with cream; then generally upon the second day of the fever we have the eruption making its appearance first upon the face and in the course of about twenty four hours extending over the trunk and extremi-ties. It commences in small red points which rapidly coalesce in broad red patches and in the course of a few hours generally form a continuous scarlet blush over large portions of the surface. The skin is generally smooth or at most only a little roughened not amount-ing to more than a rough feel like that of

goose flesh. The eruption is generally more pro-
-fuse and of a deeper colour about the flex-
-ures of the joints. Along with the rash we not
unfrequently have vesicles makeing their appear-
-ance upon the neck and in the flexures of
the joints at different stages of the disease.
Small pimples and pustules also sometimes
mingle with the rash towards its decline. The
rash is attended with a sense of burning
and itching which often annoys the patient
very much and may interfere with sleep.
The fever does not abate upon the appearance
of the rash but continues with various degrees
of violence throughout the whole of its course.
The pulse is usually very frequent: it is often
as high as 120 or 130 in the minute and
sometimes still more frequent. Occasionally
it has considerable force but this is not its
predominant character. The skin is dry and
burning hot and is not unfrequently as high
as 105° or 106° Fahrenheit and has been asserted

Desquamation generally begins with the decline of the eruption. The cuticle comes off in small scales and where it is thick as upon the palms of the hands and soles of the feet it comes off in large flakes. The cuticle of the palm of the hand or sole of the foot has been known to come off in one large flake forming a complete mould. Desquamation is frequently attended with irritation and itching and great tender- ness of the skin. It is usually completed by the end of the second week at which time if no unpleasant complication has occurred the patient may be considered as well though not yet exempt from liability to unpleasant and even dan- gerous disease. But the course of the disease is often much less favourable. From the beginning to the close it is not free from danger. Death sometimes takes place in the first stage from the

overwhelming shock upon the nervous system; and at any subsequent period the patient is liable to the same result from coma or other cerebral affection. Inflammation of stomach and bowels or affection of the Larynx have also been the cause of death. The patient may sink from debility consequent upon the malignant character of the affection; the occurrance of gangrene of the throat or the exhausting purulant discharges incident to the local inflammations which often remain after the proper disease has subsided.

In scarlatina simplex we have the fever and the rash and generally the throat implicated in a slight degree complete exemption from inflammation of the fauces being very rare; redness and some degree of soreness of the fauces being scarcely less common than the rash itself. This simple variety is often very mild. In some cases the patient is not even confined to bed

The first sign of disease which attracts the attention is a scarlet blush upon the face and neck attended with slight febrile movement which declines upon the fifth day or sooner. But in other cases it is more severe; There is an universal diffusion of the rash which is of an intense redness the heat of skin and frequency of the pulse are extreme and frequently a slight de-
-lirium occurs especially during the exacerbations of the fever at night. But unless from some intercurrant inflamma-
-tion or concealed malignant tendancy or dangerous sequelae there is little risk of life. In scarlatina Anginosa the poison seems to expend its violence upon the throat the precursory symptoms are more severe; stiffness of the jaws with soreness of the throat and pain in swallowing are often experianced from the commence-
-ment of the attack; on the second day

off with an instrument. Formerly they were thought to be the surfaces of ulcers or gangrenous portions of mucous membrane, but when removed they leave the surface merely reddened and without any organic change in the largest number of cases. Sometimes however they do really cover ulcerated surfaces and may even be gangrenous. Occasionally they extend into the Larynx producing symptoms of pseudo membranous croup but this event is rare. They often impart a very offensive odour to the breath. On the Second Third and Fourth days the temperature of the skin is very much elevated; the pulse more frequent smaller and unequal; exacerbations of fever at night; difficulty of breathing; great thirst nausea and vomiting; great restlessness from the difficulty about the head. The eruption upon the skin comes out later than in Scarlatina Simplex and is only partially diffused: generally about the wrists elbows and knees: it is very irreg-

-ular in its appearance; may partially appear and then disappear to make its appearance again at a later period; the eruption lasts longer than in Scarlatina simplex and the desquamation is less regular. The lips are often cracked covered here and there with crusts and painful when parted. The mucous membrane of the nostrils sometimes swells and closing the nostrils obliges the patient to breathe the mouth thus producing dryness of the lips and tongue. At a more advanced stage a yellow and expendingly offensive liquid is discharged from the nostrils which is sometimes very acrid and excoriates the nostrils and upper lip. A similar secretion from the fauces is swallowed and probably conduces to the irritation of the stomach and to the diarrhoea which are occasional features of the disease towards the close; the discharges from the bowels are also sometimes so acrid as to excoriate the anus.

The tongue is apt to lose its fur at an early period becoming deep red smooth and glossy or somewhat rough with projecting enlarged papillae. The incrustations upon the fauces spontaniously seperate or undergo a gradual absorption and the surface is left red and sometimes though not generally excavated.
The fading of the eruption begins a little later than in the simple form and the fever and sore throat often continue in some degree for a few days after the eruption begins to fade. When there has been much swelling about the throat recovery is sometimes considerably postponed by the suppuration which takes place occasionally the symptoms assume a typhoid character. This variety is much more fatal than the simple form.
Scarlatina Maligna is the most terrible form of this disease. Cullen calls it Cynanche Maligna

it was also called Fothergill sore throat from a description of the disease by a physician of that name who treated and wrote of this affection as a disease sui generis. It commences with extreme violence the system seems to be at once overwhelmed by the force of the disease; or the symptoms evince in their course an extraordinary degree of weakness and depravity. Either the simple or Anginose variety may present this form: the affection of the throat not being essential to the production of Scarlatina Maligna. Early in the disease we have adynamic or typhoid symptoms: the action of the poison seems to be principally upon the nervous system: there is an acrid discharge from the nostrils early in the disease; the eruption comes out later than in Scarlatina Simplex is sometimes postponed until the fourth day it is more partial and is of a darker hue. In the fauces also the redness is deeper and more inclining to the purple hue than in any other form of the disease. The tonsils are not so much swollen but present this

livid appearance and are covered with dark brown crusts even in the first day. In adults we have delirium and often deafness: and in children restlessness, coma, and convulsions: the deglutition and respiration are both difficult. As the disease advances the symptoms assume a more decidedly typhous or malignant character: The pulse becomes feeble; the skin cool in spots; the eruption disappears or assumes a more livid character: petechiae and ecchymosis appear: the exudations upon the fauces assume a darker colour; true gangrenous eschars and deep ulcerations form; the odour of the breath is foetid; sordes form about the tongue and teeth: blood oozes from the fissures in the tongue and lips; the urine is bloody and hemorrhage may take place from any one of the mucous surfaces; an exhausting diarrhoea sets in: bed sores may form on the sacrum and hips: and at length collapse takes place ending in death towards the close of the first or commencement of second week

This form appears in some years as an epidemic, or the disease may assume this form in wet, damp places; or it may present this form from some idiosyncracy of the patient; Persons of a broken down constitution or those who have been confined in crowded ill ventilated apartments seem to be peculiarly liable to this form. Every type of the disease may be seen in the same family a person taking the Malignat form from the Simple or Anginose or the simple from the Anginose or Malignant. The disease may also commence as Simplex and suddenly assume the Character of Anginosa or Maligna. Scarlatina Sine Eruptione may be either of the Simple or Malignant form but in either case the rash is entirely wanting still about the usual time we have the desquamation showing at least some slight affection of the skin.

The sequelae of this disease are numerous and dangerous; Abscesses are liable to form in the neighborhood of the parotid and submaxillary glands; or an abscess may open into the external meatus of the ear; or we may have an abscess in the cavity of the tympanum

The Eustachian tube may be closed by union after ulceration or we may have thickening of its coats from inflammation. Abscesses may form also in the joints and in the testes. Diarrhoea is another not unfrequent sequelae: or a Gastro Enteritis may be set up. The serous membranes may be attacked by inflammation to which there seems a great pro-clivity in this disease and we may have a peri-tonitis or a pleuritis or encepholitis. Pain and swelling of the large joints closely resembling rheumatism is another of the sequelae. But the most serious of them all is Dropsy; this affection is generally accompanied with Albumine Urea and is said to be associated with that condition of the kidney which has been observed in Bright's disease.

There seem to be very few if any anitomical lesions belonging to scarlet fever itself: should there have been any complicating inflammations during the course of the disease they will leave their own peculiar traces. After death in scarlet fever the rash disappears and there is very little redness of the fauces

and tonsils left should death have occurred early
If the patient die about the third or fourth day the
fauces and tonsils will be found congested. After a
violent attack of scarlet fever the cuticle has been
known to peel off as from a blister.
In the commencement of an attack of Scarlet fever
the disease may be readily mistaken for many
other febrile diseases. The most characteristic
symptoms are an extraordinary frequency of pulse
and heat of skin, redness in the fauces and
the creamy coat of the tongue with the red projec-
-ting papillae. It is to be distinguished from Measles
by the absence of catarrhal symptoms by the occur-
-rance of the rash upon the second instead of the
fourth day, by the characteristic anginose affection
and by the peculiarity of the rash which is of a
darker colour in measles and by the absence
of the crescentic margins.
The prognosis in Scarlet fever is very uncertain;
the mildest cases sometimes assume the malignant
form and patients sometimes die suddenly

from the violent effect of the poison upon the nervous system. Again cases apparently the most desperate sometimes end favourably. After the case has reached convalescence there is also liability to the most serious secondary affections. Some families have an extraordinary tendency to the most fatal form thus we may have two or three children in one family carried off on the same or successive occasions though the disease prevailing at the time be of rather a mild character. The disease is dangerous in pregnancy and in the puerperal state. In men it is exceedingly prone to prove fatal. Among the unfavourable signs are a late appearance or a considerable deficiency or a retrocession of the eruption: continued delirium or profound coma: livid or purple colour of the rash with petechiæ ecchymosis or hemorrhage. livid appearance of the fauces with gangrenous sloughs or eschars: extension of pseudo membranous exudation into the larynx: intercurrent inflammation of vital organs: bed sores

and great prostration. In the treatment of Scarlet fever we should consider the reigning epidemic as to the type which prevails and direct our treatment accordingly. In Scarlatina Simplex hygienic and dietetic means will generally prove sufficient. Keeping the patient at rest on a light diet giving cooling diaphoretic drinks and sponging the body with cold water. When the patient is very robust with high fever and considerable headache it may be proper to abstract a little blood; this best taken perhaps by cups to the back of the neck: after the fever has subsided it will be proper to guard your patient carefully from any exposure or excess for at least 30 days. In Scarlatina Anginosa if you bleed at all let it be only in those cases where the symptoms absolutely require it: where there is any doubt as to the propriety of it do not bleed at all as bleeding has no influence in cutting short the disease. When the tongue is found it does not indicate that the stomach is disordered but

rather that the tongue itself is inflamed
An emetic is of decided advantage in the commencement
of the disease and may be repeated as circumstances
require they are useful but not nessessary.
We give gentle laxitives to keep the bowels
soluble; should diarrhoea come on we may
give castor oil combined with Laudanum
thus cleansing the bowels of the irritating
secretions which have been swallowed whilst
they are rendered less sensible to the irritant
impression: we should give cool diaphoretic
drinks: use cold sponging: apply leeches to the
angle of the jaw to relieve the inflammation
of the fauces and enlarged tonsils; and after-
-wards apply a stoupe of turpentine to the
throat. Blisters should not be used from their
liability to give rise to troublesome ulcers.
we should make use of derivatives to the
feet; at the same time we should use
demulcent gargles a little acidulated or
combined with chloride of Sodae: we should

clear away the opthous crusts from the tonsils and touch them with Nitrate of Silver or diluted Pyroligneous acid: complicating inflammations should be treated by antiphlogistic means. The Malignant variety bears treatment very badly: the eruption should be invited to the surface by rubifacients and by giving stimulants internally in large doses: they should be given even when cerebral symptoms are present. The Chlorine mixture has been highly recommended in this form. Here we should use strong infusions of red pepper as a gargle and apply Nitrate of Silver or undiluted Pyroligneous Acid to the tonsils: and Turpentine to the throat externally. Scarlatina sine Eruptione should be treated as common sore throat taking care however to guard the patient carefully against the sequelae of the disease

A

Report of

Cases

Submitted to the examination

of the

Provost, Regents, & Faculty of Physic

of the

University of Maryland

for

Degree of Doctor of Medicine

by

Orville M. Blanton

of

Mississippi.

1850

Case N.° 1. Intermittent Fever.—

John Burke, aged 24, a native of Ireland, province of Connaught, came to the United States two years ago; since which time he has been employed on the Baltimore and Ohio Rail-road as a quarryman. Burke is five feet nine inches in height, well proportioned and muscular. He has generally enjoyed good health, having had but one spell of sickness before, and that previous to his coming to this country; on that occasion he was sick for two or three weeks.— His location on the B + O. R.R. was 28 miles east of Cumberland upon the head waters of the Potomac river, where he was taken sick. At this point there is a stagnant pool, and the drinking water is very bad. His work required him to be exposed (for the most part), to the direct rays of the sun.—

Aug' 28th 1849, admitted into the Baltimore Infirmary. He states that he was attacked, eight days ago with pain in the head, above the frontal sinuses, and in the occipital region; about 12 o'clock M on that day, he had a slight chill followed by high fever, which lasted two or three hours, and passed off with profuse perspiration. On the following day

day, and every day since he has suffered with a par-
oxysm. He ~~had~~ had no medical treatment until ~~since~~
he came into the Infirmary.-

At this time he has no fever, skin pleasant & perspiring;
no tenderness, or gurgling in the right iliac region, or tympa-
nites; no enlargement of the Spleen, or liver; and no ab-
normal sounds discoverable about the Chest. He com-
plains of some pain in the back of his head, & ringing in
his ears; vision good; tongue covered with a white fur; pulse
115 full & soft; bowels constipated.-

℞. Sulph Quinine grs VJ every two hours, & ℥ij Ol Ricini
to be given at 5 o'clock P.M.—

Aug 29th 11 o'clock A.M. Patient feels greatly better; rested well
last night; pulse 66, full & soft; skin cool & pleasant;
slight pain in the back of the head, & ringing in the ears;
centre of the tongue covered with a white fur, edges red;
he had one free evacuation from the bowels in the course
of the night.— ℞. Quinine continued.-

30th Passed a comfortable night; pulse 64 full & soft;
skin pleasantly cool & moist; tongue slightly furred;
some ringing in the ears, & slight pain in the back of
the

the head. He has had no paroxysm since day before yesterday; & has some appetite.- ℞. Sulph' Quinine grs iij. every 2 hours.—

31st. Rested well through the night; has had no paroxysm; appetite improving; skin natural; pulse 64; bowels moved this morning; says he perspires a great deal; some pain in the head, & ringing in the ears; tongue still slightly coated in the centre, & red around the edges.-

℞. Quinine as before.—

Sep'1st. Rested well; feels greatly improved; skin natural; pulse 76, & otherwise healthy; appetite good; tongue as yesterday; free from head-ache; & has but slight tinitus aurium; he is still rather weak, but his strength is rapidly returning, & he has been walking about the room.-

℞. The Quinine every three hours.—

Sep'2d A good night; spirits fine; skin & pulse natural; appetite good; and says he feels perfectly well.-

℞. Quinine continued every 3 hours.—

3d Improvement continues.-

℞. ℥ij Cold infusion Eupat: perfol: 3 times daily.—

4th. Entirely recovered from his intermittent fever, but

but continues in the hospital on account of a violent attack of Conjunctivitis.

Intermittent Fever.— Case No. 2.—

James Belfrey a labourer, came into the Baltimore Infirmary on the evening of the 12th September. He is a native of Ireland, 25 years of age; 5 feet 7 inches in height, stout, & muscular; and rather intemperate.—
He has been in the United States some five months, & working on the Balt.o & Ohio rail-road, about half a mile distant from the Patapsco river. He does not remember ever having been sick before.—
This patient has been complaining of indisposition for four or five days; in the first instance, he was seized with slight chill, which was followed by a fever attended with severe frontal, occipital, & lumbar pain, all of which passed off with profuse perspiration after the expiration of four hours, since which time, he has felt more or less out of health, & has rested badly at night.— At noon on the day of his admission into

into the Infirmary, he suffered with another paroxysm, attended by the same phenomena as the first, and after a like duration passed off. That night his rest was disturbed as usual, & he perspired freely.—

Sep'r 13th. Belfrey has a rather a melancholy expression of countenance; respiration 26 & easy; pulse 74 soft & full; skin moist & clammy.— He complains of severe pain in the frontal, occipital, & lumbar regions, & slight deafness, with tinitus aurium. His mind is clear, & he answers questions promptly. Tongue has a slight whitish fur upon it; he has but little desire for food; with an unpleasant taste in his mouth; & his bowels are constipated. Physical signs reveal nothing abnormal.—

℞ Salicin gr vi every 2 hours.—

14th, 4 o'clock P.M. Did not rest well last night; has had no paroxysm to day; expression of countenance more animated; pulse 74; respiration 24; skin of good temperature, & less clammy. He still suffers, though in a less degree, with pain in the head & back, ringing in the ears & deafness. The tongue presents the same appearance it did at last visit, & the unpleasant taste in the mouth remains, although

although his appetite has improved somewhat. His bowels have not been moved.– ℞ Ol Ricini ℥ij at 5 o'clock; & Salicin gr V j every 2 hours.–

15th 4, o'clock P.M. Passed a restless night, unattended however, with profuse perspiration; has had no return of the paroxysm; his skin now is pleasant & moist; respiration 22; pulse 72, regular, soft & full; tongue cleaning off in the centre, & his appetite is very good. He complains of a slight pain in the head still; & also of a stitch in the epigastric region; bowels have not been evacuated.– ℞. An enema immediately; & Salicin continued.–

16th 4 o'clock P.M. Our patient has been gradually improving since we last visited him; his physiological condition appears good, with the single exception, that the skin continues to pour out perspiration too profusely.– ℞. Salicin as before.–

19th 4. o'clock P.M. Has rested well the two past nights; still perspires too freely; the bowels have not been acted upon for 36 hours.– ℞. Enema immediately; & the Salicin every 4 hours.–

20th. Discharged Cured.–

Case No. 3. Typhoid Fever.

Anthony Daily, – labourer, a native of Ireland, aged 16 years; has been in the United States three months, during which time he has lived in Texas Balt. County Md. Aug. 27th 1849, admitted into the Balt. Infirmary, & gives the following history of his case; Eight days since he was attacked with a chill at noon, which did not entirely pass off, but moderated somewhat by the next morning. The same symptoms have occurred each day since, i.e. chill followed by fever. Three days ago he took a dose of salts, which operated very freely, & left him with a slight diarrhoea, which has been gradually increasing upon him up to this time; to day he has had seven stools.–

℞. Sulph. Quinine gr iij every two hours; and Compound Chalk mixture to be taken, after every operation on the bowels.–

28th. Countenance anxious; face flushed with a sensation of burning; slight heat of the skin generally; tongue pointed & red; ringing in the ears; vision perfect; pulse 110 full & strong. He has slight cough, with a sibilant rhonchus in both lungs, & the respirations frequent. At low

faint red points, disappearing on pressure, are to be observed on his chest & abdomen, looking very much like rose-spots; there is slight fullness in the left hypogastric region; the liver is of normal size; moderate hypochondriac pain; gurgling in the right iliac region, together with pain on pressure; as is also the case in the regions of the spleen, umbilicus & stomach. There is irritability of the biceps muscle. He says he feels very weak, & complains of severe aching pain in the head. He lies mostly on his back, but changes his position from side to side for relief. He answers questions quickly, & intelligibly, & presents the appearance of having a robust constitution. His bowels have been so frequently acted upon to day, that he could not keep a correct count.-

℞. Pulv' Opii gr j. Pil' Hydrarg' gr j. Pulv' Ipecac' gr j. Gum Arabic pulv' q.s. M.- ft., d & ft pil xij. One to be taken every 2 hours: the Chalk-Mixture to be given after each operation; & the Tinct. to be discontinued.-

29th. Rested badly last night; great pain in the head; face flushed; tongue red & pointed; increased cough; sonorous rale; pulse 108; skin hot & dry; bowels very free.-

℞. Continue the pills, & Chalk-mixture. Cups to the back of the neck, & under the clavicles.—

30th. A bad night; head-ache; great heat & flushing of the face; slight delirium through the night. The tongue remains the same; has no appetite; several stools during the night & two this morning; pulse 114; skin hot & dry; Cough very troublesome; sonorous rale; gurgling in the right iliac region; irritability of muscles; & rose-spots are very distinct on the abdomen & Chest.—

℞. Pills & Chalk-mixture as yesterday, & ice applied to the head.—

31st. Uncomfortable night; slight delirium with head-ache; flushed & hot face; tongue red & pointed; great thirst; rose-spots distinct on chest, abdomen & arms; pulse 108 quick & soft; skin moist but warm; respiration 40; mucous rale in both lungs; has had nine stools since last visit.—

℞. As yesterday.—

Sept 1st. Our patient says he rested tolerably well last night; talked considerably in his sleep; annoyed very much with head-ache; face flushed & hot; tongue as be-

fore

-fore; great thirst; skin dry & warm; respiration 44; pulse 115 small & corded; no appetite, but takes a small quantity of tea & bread; rose-spots; gurgling; pain on pressure in the iliac region, & tympanites; cough better; slight expectoration of viscid mucous; crepitant rale to a limited extent in both lungs.—

℞. Gum Arabic pulv' ℥ss. Bicarb Sodæ, ℈ij. Vin Ipecac. Syrup Squills aa ♏ ℈ij. Aquæ distill ℥viiss. Mt. Take a table spoonful every two hours. Ol Ricini ℥ij at 4 o'clock P.M.—

2d. Did not rest so well as the night before; talked a great deal in his sleep; face flushed; skin hot & dry; no head-ache; tongue as before; great thirst; pulse 106 soft & weak; respiration 44; considerable cough; sonorous rale; rose-spots, & gurgling in iliac region very distinct; slight tympanites; no pain on pressure; intellect dull; had two stools yesterday evening & one this morning.—

℞. The mixture as directed yesterday; & resume the pills of Opium, Mass Hydrarg &c one every 2 hours.—

3d. Uncomfortable night; ringing in the ears, & difficulty in hearing; skin hot & dry; tongue red & pointed; thirst; no

appetite; nose - discharge & gurgling continue; does not complain of pain any-where; coughs a great-deal, especially at night; sonorous rale in both lungs; respiration 44; pulse 120 small & weak; no stool since yesterday.—

℞. The same, & to eat ice whenever he desires it.—

4th " About 5 o'clock P.M. on yesterday our patient Being delirious, ~~our patient~~ got hold of his medicine & took ℥iv. of the Cough mixture, & four of the pills of Opium, Mass Hyd & c before he could be checked; he rested badly, & was violently purged all night; skin hot, face flushed; tongue red & pointed; great thirst; eats ice freely; no appetite; sordes on the teeth; hearing imperfect; ringing in the ears; haziness of vision; mind confused, has no conception of time; declares he has had no tea for six weeks; pulse 112 weak & small; thoracic & abdominal symptoms as yesterday, except that there is pain on pressure in the right iliac region; there is great irritability of the muscles.—

℞. As yesterday.—

5th " Slept rather better last night, although attended with a good deal of restlessness; face flushed; skin hot & dry; very deaf; considerable somnolency; pulse 120 weak & soft; cough troublesome; respiration 58; great

thirst; Sounds of respiration as yesterday; gurgling & pain in right iliac region; tympanites; great debility; one stool last night.—

℞. As before; & sinapism to the chest.—

6th. Symptoms much as yesterday; slept a good part of the night; pulse 124; skin not so hot, & rather moist; respiration 60; great deal of cough; one stool this morning.—

℞. Mass Hyd' grs XVj. Creta ppt grs XXIV. Pulv' Antimonialis grs xij. Ft, d & ft pil viij. Take a pill every two hours. Discontinue the pills of Opium Mass Hyd &c.—

7th. Rested badly; mental faculties much disturbed; troubled by visions & unpleasant fancies in his sleep; he is incoherent, & mutters in his sleep; there is great debility & drowsiness; pupils dilated; deafness considerable; edges of the tongue red; its surface white & moist; pulse 144 rather full; respiration 62; sonorous & sibilant rale over both lungs anteriorly & posteriorly; cough troublesome; expectoration free & easy with very slight rusty tinge; some pain in the chest at the time of coughing; much tympanites; Bowels moved twice last night.—

℞. As directed yesterday.—

Sep 8th. A good nights rest; says he feels much better; face flushed; skin hot; pulse 108, soft & weak; pupils slightly dilated; deafness continues; still dozes a great deal, & mutters in his sleep; gums swollen & tender, the effect of mercury; tongue as yesterday; respiration 56; sputa slightly rusty.—

℞. Discontinue the pills & give the Cough mixture

9th. Rested tolerably well; skin hot & burning; mind still confused; respiration & pulse as at last visit; tympanites; slight gurgling; Cough improving; Rhonchi persistent; sputa rusty; two stools in the night.—

Sep 10th. Skin & surface generally hot & burning; light white fur on the surface of the tongue, edges red; pulse 132 with some irregularity, but soft; respiration 48; coughs up a viscid slightly rusty coloured sputa; some pain on pressure in the right iliac region; rose-spots disappearing; he slept well last night; bowels moved once this morning.—

℞. Continue Cough mixture.—

11th. Patient says he feels better; rested tolerably well last night; skin moist, but very warm; pulse 120 & weak; there is great debility; tongue slightly coated

and rather dry; mind clearer; cough improved; there is tinnitus aurium; sonorous & sibilant rals; rusty sputa, & gurgling.-

℞. Continued.-

12th " Skin moist & warm; pulse 118 soft & compressible; tongue moist, slightly furred & pointed; some appetite, ate a little bread & rice, & took a cup of tea to day; slight thirst; emaciation quite apparent; hearing much better; no singing in the ears; cough improving; respiration 42; sonorous & sibilant rals; sputa without change; slight gurgling, but no pain on pressure; mind clear; more cheerful; no sudamina; rose-spots disappeared; rested well through the night; one stool this morning.-

℞. Cough mixture.-

13th " Our patients rest was disturbed last night by profuse perspiration; his tongue nearly clean, somewhat pointed; skin pleasant; cough rapidly improving; respiration 40; sonorous & sibilant rals; expectoration viscid & adheres to the vessel; pulse 120 weak & compressible; sudamina on the abdomen; gurgling; slight pain on pressure;

numbness of the feet; appetite improving; some thirst. Diet, tea, bread & rice. Had no stool this morning.—

℞. Alkaline solution & cough mixture.—

14th Rested well; perspires freely; sudamina on the neck; thin light fur upon the tongue; cough lessening; respiration 40; pulse 104; great irritability of the muscles; complains of pain in the small of the back, & a stitch in his left side, when he takes a deep inspiration; appetite gradually improving.—

℞. As before.—

15th Had a comfortable nights rest; spirits buoyant; says he feels a great-deal better; has been walking about his room; cough rapidly improving; rals very indistinct; respiration 38; slight difficulty of breathing, owing to the stitch in his side; sudamina have disappeared; no gurgling or pain on pressure over the abdomen; tongue almost clean; strength returning rapidly.—

℞. Vin Ipecac. Elixir Paragoric aa f. ℥ij Gum Arabic ℥ij. Aqua distill ℥iv. ~~M~~. Take a table-spoonful every 3 hours.—

16th. Rested well; pulse 96 soft & rather full; but little cough; sonorous rale scarcely perceptible; perspires freely especially at night; two boils have appeared on his face; slight irritability of the muscles.—

℞. As before.—

18th. Has rested well the two past nights; is in good spirits; his strength & appetite are rapidly on the mend; complains of a blowing sound in his ears; tongue slightly furred on each side of the fissure; pulse 96; has been walking about the room for an hour; respirations 32; cough almost disappeared; sounds of the chest natural; has had no stool for 48 hours. A dose of Pulv. Jalap. et Sodae Tart. was given to him on yesterday, but it failed to move his bowels.—

℞. Alkaline Solution; ℥ if the bowels are not acted upon before 4 o'clock P.M. take a dose of Ol Ricini.—

19th. The oil taken yesterday, acted so frequently, as to disturb our patient's rest last night, having had seven stools in the course of the night; he complains of the blowing sound in his ears; pulse 88 small & weak; skin pleasant; appetite very good; tongue clean & moist.— ℞. Continue Alkaline Solution.—

From this time, our patient continued to improve gradually until the 29th, when he was discharged cured.—

Case No. 4 Typhoid Fever.—

James E. Lemar a native of Bangor Maine; aged 40; five feet nine inches in height, stout & muscular; is married & temperate in his habits; is a seaman by occupation, & lives in Bangor when not employed.— Entered the Baltimore Infirmary Aug 29th. Does not recollect ever having been sick before, except a slight attack of Yellow Fever at Demarara several years ago. His spirits are depressed & he has a careless expression of countenance indicating considerable languor & debility. Decubitus dorsal.—

The patient states that he left Bangor on the 12th of August 1849, on board ship Ocela, & arrived at the port of Baltimore on the 24th of same month. Two weeks since whilst at sea, he was attacked with a chill followed by fever, with flushed face, & slight headache; he states that he has not been completely free from

from fever since the commencement, & that he has been growing weaker, & weaker every day, although he continued on duty for a week after the chill, & that he always suffered with vertigo on arising to attend to his work. He has had no appetite since the beginning of the attack, but is able to eat, every day, a small quantity of soaked cracker or corn meal gruel.—

On examination he presented the following symptoms; tongue slightly furred & red around the edges; skin dry & rather warmer than natural; pulse 80 soft & weak; lungs giving the natural sounds to auscultation & percussion; spleen & liver of normal size; rose spots very distinct on the abdomen, & especially on the back; tympanites of the abdomen; gurgling in the right iliac region very distinct; has no pain on pressure or otherwise over any portion of the body; his bowels have been always regular, having about one consistant stool in the twenty-four hours; had two evacuations from his bowels this morning. Whilst on ship-board, he took a dose of calomel & jalap, which produced only

only one fæculation. Says he feels better to day, than he has for some time; has eaten a small quantity of bread & tea.

When he entered the Infirmary alkaline solution was prescribed for him, & he continues it with no other remedy.—

Sep' 2d.— Rested well last night; pulse 76; soft, warm but moist skin; tongue red around the edges, & slightly furred; rose-spots; gurgling, & tympanites still present; complains of much debility, & vertigo on arising from bed; no pain; has slight numbness of the feet; says he does not feel as well this morning as yesterday; had one consistant stool last night, & two this morning.—

℞. Alkaline solution.—

3d Patient did not rest so well last night, having slept too much yesterday; complains of ringing in his ears, & difficulty of hearing; says objects appear rather hazy to him; tongue red & slightly furred & he complains that it feels very dry. Several small ulcers are observed on the tongue & fauces; some thirst; skin warm & moist; pulse 82, rather full & soft;

Rose-spots distinct; gurgling not detected; slight tympanites; appetite beginning to return; diet tea & bread; numbness of feet still exists; spirits improved; mind clear; some irritability of the muscles; strength somewhat increased; had two stools this morning; urine rather scanty; & high colored.—

℞. Alkaline Solution.—

4th " Rested well; had one stool this morning; skin pleasant; pulse 76 small & soft; tongue as yesterday; a little appetite, diet tea & bread; ringing in the ears & deafness; haziness of vision; rose-spots; sudamina observed this morning on the abdomen & chest; gurgling very distinct; tympanites; complains of great debility; lungs with natural sounds; complains of stitching pain in the epigastric region; appetite rather better; diet as before.—

℞. Alkaline Solution.—

5th " Passed a good night; had two stools this morning; appetite improving; hearing difficult; vision hazy; he complains of dryness of the mouth; tongue red, & almost clean; pulse 72; skin pleasant; perspired a great deal

through

through the night; rose-spots & sudamina still distinct; gurgling; & slight tympanites; complains of lightness of the head; there is considerable debility; irritability of muscle; he says he feels much better.—

R. As before.—

6th. Comfortable nights rest; thinks he feels better; appetite very good; perspired a great deal last night; skin pleasant; pulse 72 & soft; sudamina, & rose-spots yet distinct; slight gurgling, & pain on pressure in the iliac region; + there is tympanites; the complains of a dull pain in the region of the frontal sinuses; spirits rather more cheerful; vertigo, & numbness of the feet; irritability of muscle; ulcers in the mouth beginning to cicatrize; appetite very good; diet. tea, bread & rice; has not had a stool since yesterday.—

R. As before.—

7th. Leman says he feels better; that his appetite is good, & he has no pain in the right iliac fossa; there is slight gurgling however; abdomen somewhat tympanitic; bowels moved once this morning about 5 o'clock; skin cool & pleasant; pulse 70 soft & rather full; tongue cleaning

cleaning from the centre.— Rx. Alkaline Solution.—

8th " Had a good night; one stool this morning; he is cheerful, & sitting up sewing his garments; skin pleasant; pulse 70 & soft; tongue still slightly furred & cleaning from the centre & edges; ulcers in the mouth disappeared; secretions of the mouth natural; complains of a slight pain in his shoulder; still some numbness of the feet; has an excellent appetite; no pain in the abdomen, & the gurgling is very trifling.— Rx. The same.—

12th " Our patient has been gradually mending up to this time; last night he rested well; perspired but little; his tongue is clean; appetite good; pulse 76 full & soft; he is regaining his strength; his eyes look red, & he complains of weakness in them; has had no stool to day.— Rx. Alkaline Solution.—

16th " Continues to mend rapidly; strength almost perfectly restored; pulse 76, full & strong; takes a long walk every day, without feeling much fatigued; as yet his hearing is imperfect; he has a dull pain in the right shoulder & arm.— Directed friction with Ammoniacal liniment over the seat of pain & the alkaline solution to be discontinued.—

22nd. Patient says he feels almost well; has no irritability of muscle; indulges his appetite freely without inconvenience; two ulcers have again appeared on the fauces; muriatic acid directed to be applied to them; tongue clean; skin pleasant; pulse 80 full & soft; still imperfect hearing; bowels very regular.—

24th. Discharged cured.—

Remarks.—

The two cases of intermittent fever reported, scarcely require comment, except, perhaps, in regard to the treatment adopted; quinine having been employed in the first, & salicin in the second. It would be impossible to draw any very accurate conclusions from the report of two cases, yet, it may not be unprofitable to question ourselves as to the beneficial extent of the two remedies; & to inquire whether or not, the hygienic measures resorted to, were not of more benefit than the salicin in the one, & equally beneficial with the quinine in the other case.— Both patients were Irish labourers,

who

who are proverbial for their uncleanly habits, & they lived in small, illy ventilated huts in malarious districts:- It is but reasonable to conclude, that such patients, thus situated, when removed into a perfectly healthy region, placed in a clean, well ventilated hospital, with every comfort around them, apart from the internal administration of medicines; would after a short time recover their health; although not so speedily, perhaps, as where proper medicines have been judiciously employed: It has been repeatedly proven by experiment, that the removal of such patients from an infected to a healthy district, has been wholly sufficient for their entire relief; when all the anti-periodics, & other measures have failed to accomplish a cure.. Case No. 2 upon being discharged from the Infirmary cured, returned immediately to his former residence, but in two weeks came back again to the hospital suffering under as severe an attack of intermittent fever, as when first admitted, thus leading us to the conclusion, that although the salicin may have put an end to the paroxysms in the

the first place, it did not do away with his susceptibility to a second attack.-

Cases N°. 3 and N°. 4, presented all the characteristics of Typhoid fever. N°. 3 as will have been observed, was complicated with bronchitis, & slight pneumonia; & was attended with severe diarrhœa; these were as promptly controuled as the circumstances of the case would admit. From the history of this case, it might in its first stage, have been mistaken for intermittent fever, as there was a chill every day followed by fever. There could have been no mistake as to the true nature of the affection, however, a day or two after his admission into the Infirmary; as he had well marked rose spots over his chest & abdomen, with gurgling, diarrhœa, considerable prostration, & a red & pointed tongue. Previous observations have taught us, that gurgling in the right iliac region cannot be considered pathognomonic of Typhoid fever; as cathartic medicines & especially the saline cathartics will produce it.-

N°. 4, was a beautifully marked case, without complication, & passed through its different stages to a happy ter
mination

mination, without the aid of any other medicine than the alkaline solution.-

It has been stated by some authors, that there always occurs a critical discharge in typhoid fever, indicative of a favourable, or of an unfavourable termination of the disease; but, as this assertion has been controverted, by the observations of many of the most scientific gentlemen in the profession, it is scarcely worth while to dwell upon it. In the case under consideration, however, on the 19th day of the malady, a profuse perspiration came on, from & after which time he improved.-

I will not attempt, in these remarks, to discuss the relative importance of the different symptoms of typhoid fever; or to question the correctness of the extensive means which have been so beautifully set forth by the master Spirits of the healing art; but will content myself with the belief, that if I can but properly apply known practical truths, for the relief of suffering humanity, I shall feel amply rewarded for all the toil & care bestowed in acquiring them.-

In-

In conclusion, allow me to return my sincere thanks to Prof's Chew, Power and Thomas for the kind manner in which they have at all times aided me in my study of the diagnosis and treatment of disease.—

Baltimore Feb 19th 1850.—